

Digital Ethics Framework Recommendations for Social Media Archiving Applications

A Thesis
Presented to
The Academic Faculty

by

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In Partial Fulfillment
of the Requirement for the Degree
Master of Science in Digital Media in the
School of Literature, Media, and Communication

Georgia Institute of Technology
May 2018

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Digital Ethics Framework Recommendations for Social Media Archiving Applications

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Date Approved: April 25, 2018

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Summary

Citizen journalism performed through social media platforms is increasingly becoming a default means of communication networking and information consumption for local and global audiences. This increase in social media information networking has garnered interest within the domain of communication and media studies as recent domestic and international social movements have been studied in relation to their social media network basis. Consequently, the academic community is now considering social media archiving of Tweets related to significant historical events as an emerging academic field of inquiry. Despite the social and historical import of digital ethics in social media archiving and the emerging development of social media archiving as a field of investigation, there is a need for scholarly work that aims to systematically develop a social media archiving digital ethics framework informed by a multi-disciplinary ethics analytical structure for current and emerging digital social media archiving tools and applications. The work presented in this thesis is focused on developing social media archiving digital ethics framework recommendations for the social media archiving tool DocNow as well as other similar potential future social media archiving tools. In order to develop well-informed digital ethics framework recommendations, this study draws from Information and Communication Technology, new media, citizen journalism, and social media ethics framework.

Chapter 1

Introduction

Overview of DocNow: Social Media Archiving Technology

Social media archiving of user-generated content displaying individual and collective experiences, perspectives, and responses to historically significant events, like the 2014 Ferguson protests, is an emerging field of academic study (Peet "Docnow: Saving Social Media"; Peet "Documenting the Now Builds Social Media Archive"). More than just a domain of study, social media networking in response to cultural, economic, and social issues emerges as a result of the interworking of several factors that are specific to individual regions, cultural groups, economic environments, and socio-historical contexts. However, regardless of location and specific cultural contexts, this emergence of social media networking for significant cultural development whether countercultural realization or political mobilization is a byproduct of the increased use of social media and the related emergence of individual and group identity making through networked communities (Heravi and Harrower; Papacharissi). As platforms of communication and interaction, like Twitter, expand in their magnitude of being mechanisms for communication, self-empowerment, translocational dialogue, and activism, these platforms simultaneously become primary sources for the rapid exchange of information, dialogue, and community development. Consequently, social media archiving presents an important intersection between the humanities and technology in a unique intertwining.

Currently, several social media archiving tools exist for commercial purposes to enable companies to maintain records of their social media activity. However, in terms of an example of a social media archiving tool with a specific social and ethically focused locus of origin, the

Andrew W. Mellon Foundation funded Documenting the Now development is a forerunning project within the field. Documenting the Now is designed to provide both archivers and scholars with an open-source, cloud compatible tool for analyzing, chronicling, and preserving Twitter posts and their related metadata in response to historically significant events. As such, Documenting the now, also more commonly referred to as DocNow, is a collaborative project undertaken by the University of California at Riverside, the Maryland Institute of Technology in the Humanities, and Washington University in St. Louis. The project's key affiliates are Bergis Jules (political papers archivist, University of California at Riverside), Ed Summers (tech lead and developer, University of Maryland,), and Vernon Mitchell Jr. (administrative lead, Washington University), but the cross-disciplinary project involves additional key actors outside of the three primary persons listed (Peet "Docnow: Saving Social Media").

While Documenting the now, offers a new means of supporting the field of social media archiving through the collation and preservation of digitally based, historically significant user-generated content, it also presents the need for dialogue, research, and development of digital ethics guidelines expressed through design and implementation that address the social, historical, and privacy issues associated with such technological applications (Peet "Docnow: Saving Social Media"). This need for a historically and socially aware ethics framework specifically in DocNow is discussed in both scholarly and non-academic content related to the social media archiving project. In an interview with Library Journal News, Chris Freeland, a librarian at Washington University in St. Louis and the previous administrative lead for the project, acknowledged the ethical challenges of the project ranging from issues in defining privacy to how the aggregated data should be handled when removed from original user's pages (Peet "Documenting the Now Builds Social Media Archive"). Early fall of 2017 in a blog post on the Doc Now blogsite, the lead

developer of the project, Ed Summers posted that DocNow in conjunction with Rhizome, a digital arts and digital preservation focused organization, would be hosting in spring of 2018 a *Forum on Ethics and Archiving the Web* and looked to receive work namely “presentations, discussions, case studies” that addressed the following areas of research related to social media archiving: “community-driven web archiving efforts, documentation of activism, archiving, trauma, violence, and human rights issues, recognizing and dismantling digital colonialism and white supremacy in web archives, strategies for protecting users, from one another, from surveillance, or from commercial interests, design-driven approaches to building values & ethics into web archives, issues arising when archives become big data or are used for machine learning” (Summers).

As discussed in the overview above of DocNow, there is a need for the development of digital ethic framework recommendations for social media archiving applications. Consequently, I am interested in contributing to this current dialogue associated with digital ethics and socio-historical precedent. Moreover, in this study, I have sought to develop digital ethics framework recommendations which can be applied to the DocNow application and similar future social media archiving technologies. Moreover, by analyzing the ethics frameworks of related fields, I have also developed a digital social media archiving tool which is informed by the digital ethics framework recommendations I have developed through this study. In order to develop a framework of digital ethics recommendations for DocNow and similar emerging social media archiving tools, I used content analysis and mapping in analyzing the ethics frameworks of Information and Communication Technologies, social media, new media, and citizen journalism in order to develop the digital ethics framework. Moreover, to integrate the developed digital ethics framework recommendations into a digital prototype, I used a Value Sensitive Design approach which led to identifying direct and indirect stakeholders, carrying out observations, and ultimately using the

insights gained from the abovementioned conceptual and empirical investigative phases to develop the social media archiving prototype.

Social Media Archiving and Emerging New Media Opportunities

Social media ethnography and archiving derives from traditional archiving practices which are developed to represent and preserve experiential knowledge, historic documents, and both individual and collective narratives (Postill and Pink). However, social media archiving differentiates itself from traditional archiving practices in that it is primarily digital in its representation as its catalogues are based in social media interactions and are also represented digitally (Lomborg). As technology continues to advance with more integrated and embedded technological structures for human interaction and platforms for connecting like social media continue to compile increasingly more amounts of data on individuals and their personal narratives, history is seemingly presented in an increasingly more autonomous manner. Social media archiving tools, like DocNow, are supporting an emerging domain of scholarship focused on the intersection of social media with history preservation. However, the actual benefits and challenges of its political and social implications as it regards representation, privacy, and ethical requirements still need to be explored through rigorous ethical investigation and dialogue. This study intends to participate in the emerging work towards developing research that investigates the benefits, challenges, social implications, and privacy issues of social media archiving in order to develop an informed digital ethics framework.

For the purpose of this study, I used the emerging African American focused social media archiving platform, DocNow, as the focal structure for analysis for two principal reasons. The first reason I selected DocNow as the focal social media archiving structure for this study is due to the uniqueness of its function. While social media use is incredibly widespread, there is currently no

social media archiving repository structured like that of DocNow in terms of its commitment to sociohistorical awareness and technological transparency. In terms of its sociohistorical awareness, I chose DocNow as my structure of focus because DocNow represents a shift in creating more socially aware technological structures through various levels of integration, which I discuss later when I analyze the DocNow prototype. Moreover, in terms of the technological side, the DocNow project has also been very willing to share its setup as well as involve and collaborate with others interested in the project through social media platforms like Slack (DocNow "Docnow").

DocNow is significant to new media studies in that it intertwines historically and socially significant events into a technological platform which offers potential longevity. Moreover, the benefits of DocNow and similar potential future applications encompass social, technological, academic, and generational benefits. The social benefit of DocNow lies mainly in its ability to give representation and voice to previously marginalized people groups. By providing a platform that gives voice to individual and shared narratives in response to historically significant events, such as the 2014 Ferguson protests, history is developed in a more autonomous manner, which has the potential to breakdown perpetuated marginalizing ideologies. However, while enabling historically marginalized groups to develop a voice in a loud digital space, it is also important to realize that groups are comprised of individuals whose individual voices and desires should also be represented within the development of social media archiving projects such as DocNow. Thus, this project seeks to develop a digital ethics framework that recognizes both the group-based and network-oriented element of social media archiving and the benefit it presents along with the individual component that should also be recognized within the design of social media archiving tools.

Defining Ethics within Social Media Archiving

In general ethics deal with determining what is socially acceptable or unacceptable in regards to behavior and conduct and are needed in order to establish a basis for social responsibility (Resnik). While ethics may be considered in a broader sense on a general social level, its application can be particular to specific professional, governmental, or academic associations (Resnik). In terms of ethics more specifically focused on social media archiving and networked technologies, a combination of ethical frameworks should be considered including Information and Communication technologies, new media, social media, and citizen journalism. At a high level considering Information and Communication Technologies, digital information and communication information ethics specialist Rafael Capurro defines digital ethics as “dealing with the impact of ICT (Information and Communication Technologies) on society and the environment at large...” (Capurro). In Nick Couldry’s *Media, Society, World: Social Theory and Digital Media Practice*, he discusses the ever-increasing impact of media globally and the corresponding lack of ethical standards (Couldry).

Focusing on the citizen journalism aspect of digital ethics, Bruce Mutsvairo in *Participatory Politics and Citizen Journalism in a Networked Africa: A Connected Continent*, recognizes citizen journalism as transition in ethics that facilitates networked journalism. Mutsvairo argues that citizen journalism and its corresponding ethics framework is the developing product of a “new ecology of ethics” that involves elements such as “digital networks, flows, fluidity, flux, uncertainty” (Mutsvairo). This sentiment of digital networks in political mobilizations is also reflected in Zizi Papacharissi’s work *Affective Publics Sentiment, Technology, and Politics* (Papacharissi). Because social media archiving is a developing field of

academic study and research, the basis for an ethics framework has yet to be developed that is multi-disciplinary in approach and broadly informed in order to address the complex and multi-faceted nature of the field. In this study, I have sought to develop a digital ethics framework for the DocNow application and similar future social media archiving tools. In the process of developing a digital ethics framework for the DocNow application, the study seeks to further add to the breadth of knowledge involved in future social media archiving platform that may be used for academic research.

Understanding Digital Colonialism and Reasoning Behind Methodology

In order to begin the process of integrating ethics into the design of a digital tool that both uses and creates collective knowledge, I wanted to ensure that the methodology I used to carry out my research was also ethical in nature. Moreover, in my research I realized that while social media archiving tools like DocNow are a valuable source for gathering and preserving historically significant digital content it was necessary that I had a recognition of the implications of how use of such tools plays a role in the development of knowledge and how this may at times relate to troublesome historical practices. Consequently, in this study, I wanted to both recognize and develop digital ethics framework recommendations from a knowledgeable point of reference that recognizes the significant relationship between the social, technological, and historical aspects of social media archiving. In order to understand how the developed digital ethics framework recommendations for social media archiving applications I developed in this study address the challenges of digital colonialism, I will briefly discuss the concept of digital colonialism and its relationship to postcolonial theory. Following a brief discussion of digital colonialism, I illustrate the direct connections between this study's basis and how the methodology and implementation address the challenges of digital colonialism.

As in history where colonial powers exerted power over the people and lands they colonized, digital colonialism stems from a similar conceptual construct. While the Niña, Pinta, and Santa María are no longer being used as vehicles for exploration, discovery, and conquest, today modes of technological use at times serve as vehicles for digital colonialism of people and their data whether shared voluntarily or involuntarily. In their article *Digital Colonialism*, Professor and Director of Informatics at the University of Applied Sciences in Zagreb Petar Jandrić and Associate Professor of Arts at the University of Split Ana Kuzmanić cite postcolonial theorist Edward Said in setting the basis of digital colonialism in geography (Said; Jandrić and Kuzmanić). Just as in history where settlers embarked out from the confines of the familiar to discover new places for settling and developing a new way of life and gaining revenue, digital colonialism relates to creating new geography and ways of being through a sort of migration (Jandrić and Kuzmanić).

With these concepts in mind, DocNow and other social media archiving tools that focus on historically marginalized groups should be approached carefully. However as in Melinda Robins' *Are African Women Online Just ICT Consumers* where she states, "Neither a naive celebration of ICT potential nor condemnation as a new digital colonialism adequately captures the situation", I attempt to take a similar perspective in examining the use of social media archiving technologies and consequently developing a prototype of such a tool (Robins). Moreover, in order to not approach the situation too naively, I have sought to both recognize and understand the implications of digital colonialism. It is not beneficial to completely withdraw from attempting to engage and develop technological modes that promote intellectual dialogue and the spawning of social networks for fear of falling into the same practices of past hegemonic structures. However, as Robins also suggests it is not wise to be too naïve also to assume that proceeding with an overly optimistic and deterministic perspective on ICT potential can remedy the social challenges of our

times or those in the future. Consequently, in this study and the corresponding prototype, I have sought to recognize the potential of digital colonialist tendencies to pervade such digital tools and consequently take measures to prevent such restrictions. As, Stephen Ward describes in *Radical Media Ethics A Global Approach*, “Ethics at its best is reflective engagement with the urgent problems of the day, in light of where we have been and where we hope to be tomorrow”, in this study I have sought to engage the challenges presented in social media archiving tools by reflecting on the historical precedence, the present implications, and the future opportunities (Ward).

Chapter 2

Methodology

Meta-Ethics Analysis, Content Analysis, and Mapping

To add to the developing discourse surrounding DocNow and more generally provide digital ethics framework recommendations for the emerging field of social media archiving and employ the developed ethics guidelines into a social media archiving tool prototype, I used content analysis and mapping in developing the digital ethics framework and a Value Sensitive Design approach in applying the developed ethics insights into the design of the social media archiving tool prototype. While in a blog post on the DocNow blog, the project's user experience designer Alexandra Dolan-Mescal described the foundational principles of the project as: "be intuitive and easy to use, be built with our users, not just for them, embody our project's values and ethics, through this study", I have sought to add to this foundational premise of ethics implementation, specifically the empirical basis of the tripartite Value Sensitive Design methodology, in design by utilizing a more comprehensive approach to ethics in order to uncover dialogues taking place among existing ethical frameworks related to social media archiving and how these ethical dialogues relate to the sociohistorical construct of this research (Alexandra Dolan-Mescal).

Through content analysis, I identified existing salient ethics guidelines in Information and Communication Technologies, new media, citizen journalism, and social media. I chose to use Information and Communication Technologies as an area of ethics analysis due to its broad and ubiquitous nature as it encompasses a wide range of technologies. From my research within ICT ethics, themes that were identified centered around privacy, security, information overload, the digital divide, gender discrimination, and censorship (Göran; Van den Hoven; Ian et al.; Capurro).

In addition to Information and Communication Technologies, I chose new media as an area of ethics investigation due to its forward-thinking nature and increased prevalence in emerging technological research. Narrowing in specificity, I chose citizen journalism as an area for gathering ethical insights into social media archiving applications due to the strong user content focused or *produsage* nature of social media archiving (Roberts and Steiner). From research ethics frameworks related to citizen journalism, I found themes that centered around being honest, fair, and accountable while minimizing harm, disclosing sources, and presenting narratives out of an aim for transparency (Heider and Massanari; Herrscher; Smith and Lee). Finally, I chose social media ethics frameworks as a field of ethics analysis due to the social media base of the study. In addition to exploring the four abovementioned areas, I also gained insight from perspectives from a DocNow focus group. Moreover, through map analysis, I analyzed how the abovementioned foundational domains of social media archiving are in dialogue. While the areas of exploration for social media archiving ethics investigation are not totalizing or comprehensive of the myriad of ethics guidelines that exist, I have found them to be, for the purpose of this study, an entry point into further empirical investigation as part of the Value Sensitive Design methodology used in developing the DocNow social media archiving tool, which I discuss in more depth in the following section.

Value Sensitive Design Approach

In order to tactfully embed value ethics in my research and corresponding social media archiving prototype, I considered various research methodologies and design approaches. However, the two that I considered as most plausible were participatory design and Value Sensitive Design. Initially, I was interested in participatory design as a design method for developing the prototype portion of this thesis mainly due to the fact that DocNow is a research tool that is

interested in incorporating communities and users' perspectives and needs into how research is carried out through the DocNow tool. Additionally, I strongly considered participatory design as a research method for this research due to its structured approach in gaining user perspectives and applying them to design (Spinuzzi; Muller and Kuhn). However, as I continued researching, Value Sensitive Design as a design method stood out as it seemed to embody in a holistic way the user integrative aspect of participatory design in addition to an emphasis on embodying values through intentional iterative research (Friedman; Van den Hoven).

Value Sensitive Design at its core seeks to incorporate human values into the design of technological objects. Moreover, the research I have carried out in this thesis and the prototype implementation situates social media archiving as in dialogue with a pre-existing theoretical design approach that is concerned not only on the end goal but in ensuring values are incorporated into design through systematic research and analysis (Friedman et al.). Though Value Sensitive Design is a theoretical approach, which has been interpreted in various ways since its beginnings in the 1980s and 1990s with Batya Friedman (Le Dantec, Poole and Wyche; JafariNaimi, Nathan and Hargraves; Friedman et al.), in general, Value Sensitive Design supports human values by iteratively employing three investigative strategies – conceptual, empirical, and technical investigations (Borning and Muller; Friedman et al.). Although Value Sensitive Design as a research approach began its formalized formation with the research of Batya Friedman and Al Boring in the 1980s and 1990s, Friedman and Boring position their research in Value Sensitive Design as being foregrounded by similar earlier research which focused on the topics of privacy, ownership and property, physical welfare, universal usability, autonomy, informed consent and trust within information technology systems (Friedman et al.). Likewise, the areas in which the ethics research I deal with in this thesis share overlap with many of the abovementioned topics

which Friedman et al. discuss. However, as Friedman et al. also indicate, Value Sensitive Design is unique compared to the abovementioned fields of research in that it is distinctly focused on value and design (Friedman et al.).

As mentioned previously, since its beginnings in the late 1980s with Batya Friedman and Al Boring, Value Sensitive Design has evolved through various interpretations. In their work entitled *Value Sensitive Design in Information Systems*, Friedman et.al describe their desire to present Value Sensitive Design in such a way as for other researchers to both systematically examine as well as build upon the Value Sensitive Design approach they present. Consequently, in this study as Friedman et al. suggest, I have built upon existing work in Value Sensitive Design by weaving perspectives from research in Value Sensitive Design. However, in keeping with the most basic fundamental construct of Value Sensitive Design, I carried out both conceptual and empirical investigations as well as a technical analysis.

Although the earlier form of Value Sensitive Design as developed and promoted by Batya Friedman used a methodological approach of conceptual and empirical investigations followed by a technical analysis, the process by which I carried out my research using the Value Sensitive Design framework aligned more closely to the approach of Le Dantec et al. in *Values as Lived Experience: Evolving Value Sensitive Design in Support of Value Discovery* in that I went through empirical investigations first followed by conceptual investigations and technical analysis (Le Dantec, Poole and Wyche). As described in Le Dantec et al.'s approach to furthering Value Sensitive Design, the purpose in carrying out the empirical investigations initially is to avoid developing values that are more subjective in nature as opposed to identifying values aligned with the interests of the local groups being studied (Le Dantec, Poole and Wyche). Moreover, by viewing the focus group videos as well as gaining perspectives from scholarly articles on the

opinions of social media research, I was able to identify values that were reflective of not just researchers but of the values of individuals whose data and corresponding narratives might be used for research purposes.

Adding to the empirical investigations I carried out by viewing the focus group interviews to gain perspectives on value and ethics as well as researching scholarly articles done on research study user perspectives, I incorporated further research into ethics that could be applied to my social media archiving prototype and broader applied digital ethics framework recommendations by analyzing ethics of import to fields in which social media archiving is based namely Information and Communication technologies, new media, citizen journalism, and social media . My reasoning behind investigating ethics perspectives in these fields is based in the fact that social media archiving is an emerging field whose basis is found in several different fields that currently have more research and work carried out in them. Moreover, as noted before, the DocNow team noted that in engaging with social media archiving, there was no existing frame of reference for how to ethically go about developing a research platform that primarily investigated a traditionally marginalized people group (Summers). Consequently, I investigated current ethics research in ICT, new media, citizen journalism, and new media because in addition to developing a social media archiving platform in that I am also interested in the greater application of a digital ethics framework which can be investigated, applied, and built upon for further research in social media archiving. Therefore, my research stands to be in dialogue with social media archiving as an emerging field as well as to the fields with which social media archiving is connected.

In continuing with the Value Sensitive Design methodology, I carried out conceptual investigations. By carrying out conceptual investigation, I identified direct and indirect stakeholders in social media archiving and further considered the ways in which they are affected

or may possibly be affected. Based on the Value Sensitive Design approach, direct stakeholders are those that interact directly with the system, and indirect stakeholders are individuals that are affected by the system. Within my research, I identified direct and indirect stakeholders and the roles they play within the network of social media archiving, as it relates specifically to DocNow and my developed social media archiving prototype tool (Friedman, Kahn and Borning). Also, I considered the implications of individuals who may be involved as both direct and indirect stakeholders and what this dual positioning may involve as it regards their engagement (Shneiderman and Rose).

The third component of the Value Sensitive Design approach is the technical aspect, which involves examining the technology from a critical value focused perspective. Through my study, I analyzed the current DocNow application and examined the value ethics expressed through the design. In addition to the design, I examined the properties associated with the technology used to develop the actual application. Moreover, in the social media archiving prototype tool I develop, I also analyze how the ethics values I identified across the disciplines and stakeholders is implemented through the prototype developed (Friedman et al.).

In the technical phase, I incorporated the insights I gained in the conceptual and empirical phases to shape my development of a social media archiving prototype, which reflects the social media archiving digital ethics framework recommendations I developed in the initial part of this study (Borning and Muller; Friedman et al.) Because this study is a part of a thesis, the primary focus is to investigate dialogue amongst existing ethical frameworks and identify how they could be applied to further iterations of social media archiving tools, such as DocNow. Moreover, taking this study to the next level would involve more user studies involving interviews and focus group

evaluation to examine the functionality of the insights developed and expressed through the design of the prototype.

In addition to aligning my research methodology in Value Sensitive Design in its more traditional construct as well as adopting some of the leaning of Le Dantec et al.'s approach, I also considered how additional work in Value Sensitive Design could be applied to further work in social media archiving and digital ethics framework recommendations. The Value Sensitive Design development proposed by Nassim JafariNaimi et al. in *Values as Hypotheses: Design, Inquiry, and the Service of Values*, which emphasizes storied inquiry where narratives are used for identifying values in a distilled manner. Although this research is a thesis with a project component, in furthering the research I have carried out in identifying values for social media archiving applications, using the storied inquiry approach discussed by JafariNaimi et al. would further refine the application and nuanced sensitivity of the digital ethics framework recommendations I have developed and continue to update (JafariNaimi, Nathan and Hargraves).

Chapter 3

DocNow: Who, what, when, where, and how?

Who is involved with DocNow

While in the previous sections I have given a brief overview of what DocNow is, in this section, I will go further in depth as to who is involved in the project, what DocNow provides users, how its nature relates to the goals of the Andrew W. Mellon Foundation as well as to the interests of the emerging social media archiving community, when DocNow emerged and the sociopolitical climate during that time, and how DocNow relates to a broader social interest in understanding and protecting communities. In terms of who is associated with DocNow, this involves a far-reaching network, which can be thought of as the networks Bruno Latour describes in his Actor-Network Theory model (Latour and Porter). However, to be more straightforward for the purposes of this study, I have focused the network of DocNow as involving, the Andrew Mellon Foundation, the universities involved (the University of California at Riverside, the Maryland Institute of Technology in the Humanities, and Washington University in St. Louis), the DocNow research and development team, the Twitter users whose Tweets are involved in the repository, and persons who are tagged in the posts of individuals included in the Twitter archive, the data gathered and analyzed, and the technological platforms used to develop the DocNow tool.

The Andrew W. Mellon Foundation

Founded in 1969 as a not-for-profit corporation, the Andrew W. Mellon Foundation identifies its purpose as to support the development of research and preservation in the humanities and the arts. Moreover, the foundation identifies “chronicling, recording, analyzing, and transmitting its understanding of human agency, dignity, history, and society” as one of its central

missions. An interest in preservation is a central element in the foundation of the DocNow project (Foundation). As such, the Andrew W. Mellon Foundation issued a two-year grant of \$517,000 to the development of the DocNow project, which is fully entitled Documenting the Now: Supporting Scholarly Use and the Preservation of Social Media Content (Service).

The University of California at Riverside

As a public research university, a part of the ten University of California state system universities, the University of California at Riverside boasts of being one of the most ethnically diverse universities not just in California but nationwide (UCR "About"). The University of California at Riverside's emphasis on diversity is evident in the robust and culturally diverse library collection the university holds (UCR "Collections"). This interest in diversity of people and knowledge may be an important reason why UCR was identified as a significant source for the Document the Now project.

The Maryland Institute of Technology in the Humanities

Founded in 1999 and supported by the University of Maryland College of Arts and Humanities as well as the University of Maryland Libraries, the Maryland Institute of Technology in the Humanities is a research center focused on developing projects surrounding digital preservation, cultural heritage projects, and data research (MITH "About"). As a research center focused on emerging developments within the humanities, the Maryland Institute of Technology focuses on the intersection of technology and the humanities and seeks to maintain "openness" in their work (MITH "Our Values"). This emphasis on openness and integrating humanities research with technological developments is likewise fundamental to the DocNow project and their interest in providing an open-source social media tool for researchers and the interested public.

Washington University in St. Louis

The only private research university of the three-university collaborative unit for DocNow, Washington University in St. Louis emphasizes both academic rigor and diverse representation in their student body and faculty and staff. Washington University in St. Louis, like the University of California at Riverside, holds a vast and diverse library collection of books and historic material, which is especially important to the historical value the DocNow Project emphasizes (WashingtonUniversity; Hale).

Research and Development Team

In terms of who is involved with DocNow on the research and implementation level, the project has a core team of six people but also involves an advisory board of twenty members, whose areas of work span several fields including African American history, archiving, computer science, and library innovation. The core team is comprised of Vernon Mitchell Jr. (Administrative Lead), Bergis Jules (Community Lead), Ed Summers (Technology Lead), Alexandra Dolan-Mescal (UX Designer), Timothy Cole (Project Manager), and Francis Kayiva (DevOps Engineer). To provide additional context as to who is involved and invested in the project, I will present brief excerpts on the core team members (DocNow "Docnow").

On his blog Vernon Mitchell Jr., the administrative lead of the DocNow project, introduces himself as having earned his Ph.D. from Cornell University in History. His research area is focused around analyzing African-American 20th century religious and political thought and the intersection of race, politics, and religion, primarily in the early decades of the twentieth century America” (Mitchell Jr.). Holding a M.S. in African American and African diaspora studies and a M.L.I.S. focused in “archives and records management”, Bergis Jules is the Community Lead for DocNow and supports the University of California at Riverside as a University and Political

Archivist by managing both the library's African American collections as well as political papers (Library). Coming from a diverse educational background, Ed Summers, the project's technology lead, is currently a Ph.D. student in the University of Maryland's Information Studies college. Summers has worked to build the Repository Development Center (RDC) at the Library of Congress and has also worked to implement the National Digital Newspaper Program, which gives users access to 8 million newspapers nationwide. In addition to these projects, Summers has been involved with various other digital curation and preservation projects which seek to provide open archiving systems to users (MITH "Ed Summers "). With both a fine arts and technical background, Alexandra Dolan-Mescal, the DocNow project UX Designer, has experience with information sciences and data visualization as she holds a M.L.I.S and Professional Certificate in Data Visualization. In addition to her fine arts and design background, Dolan-Mescal has worked on various projects dealing with archiving collections and digital historical records (Alexandra Dolan-Mescal).

Social Media Users as Research Subjects Perspectives

In following the Value Sensitive Design approach, the DocNow project has involved panel focus groups that allow the team to gauge perspectives from individuals who are involved with activism movements, which are generally active on social media platforms like Twitter and consequently in line with the DocNow project vision. These panel discussions have been video documented and uploaded to YouTube. Therefore, I will provide a brief synopsis of themes of importance, which came up during one of these sessions.

From the DocNow focus group sessions posted on YouTube, I was able to gather first-hand perspectives on the movement as well as insight as to how activists involved desire for the movement to be archived. In the focus group session posted as on YouTube as "Social Media and

a Record of the Movement”, the panelists who were very much involved in both mobilizing and sustaining the movement described their experiences in turning to Twitter as site for both activation and mobilization. Through Twitter, the panelists described viewing live streams of the events following Michael Brown’s death and how the social media site served as a mechanism for keeping up-to-date with other activists locally and internationally. While Twitter served as a significant conduit in how the activists participated and communicated through the movement, the challenges they acknowledged with the platform as a research site include Twitter’s inability to encapsulate on-the-ground conversations, the incompleteness to fully document an individual’s change although it does have an element of humanization, and the mental health challenge of reliving such traumatizing experiences. Additionally, the focus group panel expressed the desire to have social media archiving, specifically through DocNow, as representing individual’s narratives outside of sensationalized mass-media accounts. (DocNow *Social Media and a Record of the Movement*).

In addition to the previous very contextualized perspectives gained from the focus group sessions, I also conducted research of scholarly sources to gain additional perspectives into issues surrounding audience, privacy, and agency in social media research. However before analyzing Twitter user perspectives on Tweets being used for research, I first want to explore the differences in user perspectives on audience as this has a significant bearing on the shaping of user perspective as it relates to broader issues of value and ethics. In *I tweet honestly, I tweet passionately: Twitter users, context collapse, and the I imagined audience*, danah boyd discusses Twitter user perspectives as it relates to audience and she posits that as in other mediated communication, such as telephone or email, Twitter users imagine their audience. Based upon her research, Twitter users may imagine a singular audience or a combination of audience group. These imagined audiences

may be friends, followers, one's self (as in a diary-type mode), an ideal person, or fans (this perspective was held by users with followers of 100K +) (Marwick and Boyd). Even in the case of Twitter users who responded that they do not imagine an audience, boyd purports that these users are still writing to an audience as they have a base of followers (Marwick and Boyd). It is interesting that while, as demonstrated by boyd's research, Twitter users knowingly or unknowingly write to an audience the perspective that Tweets may be consumed by a research audience did not surface with respondents. This is not to say that some Twitter users do not imagine that their Tweets may be read by researchers, but I do make this point to suggest that this perhaps inhibiting barrier is more than likely not at the forefront of most Twitter users' considerations when posting, which ties into the issue of context collapse (Marwick and Boyd).

Context collapse is the concept of information intended to be read or consumed by a particular imagined audience being exposed to various un-intended or unimagined audience groups in that multiple audiences are "flattened" into a single audience (Marwick and Boyd). In addition to the socio-historical challenges and issues that I present in this thesis as needing attention in projects that seek to examine traditionally marginalized groups as DocNow does, the challenge of context collapse presents another area in which research fields like social media archiving need to investigate how values and ethics can be implanted to protect individuals from unintended repercussions of research which seeks to utilize seemingly public data (Williams, Burnap and Sloan). These compiled challenges surrounding privacy and the context collapse are reflected in research subjects who Beninger et al. in *Research using Social Media; User's Views* identify as being characterized into three categories of skepticism, acceptance, and ambivalence as it regards research dealing with social media (Beninger et al.).

The two perspectives on which I will focus in this analysis are those of respondents categorized within the domains of skepticism and ambivalence. Of the respondents Beninger identify as within the skepticism category, these respondents were unsure of how social media research would be carried out and why it was an option over traditional research which often relies on face-to-face contact. Specifically, the issue of ethics or the lack thereof was brought up by respondents. In addition to a desire for research transparency as it regards purpose, use, and implementation standards, participants concerned with ethics issues also voiced concerns regarding the process of how ethics standards would be developed for social media research (Beninger et al.). Unlike the skepticism group, respondents within the ambivalence category displayed no interest in how research was carried out. Instead respondents in this category seemed to take an approach of helplessness due to the seemingly out-of-reach nature of research of this kind involving both user offered data and data profiles gathered from algorithms (Williams, Burnap and Sloan; Beninger et al.). Beninger et al. also discuss perspectives of respondents who were accepting of social media research due to their own confidence in the online self-regulating behavior. However, the perspectives of respondents within the skepticism and ambivalence category are especially significant to this research revolving around developing digital ethics framework recommendations in that these perspectives reveal the need for ethics guidelines in social media research, the importance of transparency in how ethics guidelines are developed for social media research, and the challenge of making publics aware of their agency in determining how social media research is carried out.

In terms of how these perspectives and values interested in preserving individual's narratives through social media archiving research can be discussed in the context of this research, these narratives and perspectives are significant in gaining the perspectives of the localized groups

which this research is focused. As the Value Sensitive Design approach is concerned with incorporating the values of user groups into design, the perspectives gained from the panelist sessions as well as the following scholarly research, provide value insights that can be considered in the context of ethics framing. Although the digital ethics framework developed through this research are recommendations for ethical practice in social media archiving, the perspectives, which will be analyzed in a more comprehensive, analytical manner later in this thesis, serve as a work to begin further discussion in the field of social media archiving. Further focus group sessions, interviews, and collaborative Value Sensitive Design research will add to the knowledge base in this research field as well as encourage adoption.

Analyzing What DocNow Is

As stated previously, DocNow is an application used for social media archiving of historically significant events, whose social media presence is represented through Twitter posts. DocNow archives these Twitter posts and their corresponding meta-data. On the DocNow GitHub page, the Documenting the Now project is described as “tools supporting the ethical collection, use, and preservation of social media”(Peet "Docnow: Saving Social Media"). On the actual web homepage of the DocNow application (docnow.app), the interface is minimal in its aesthetic quality and seems to be most intentional about clearly representing the data. The top left-hand corner of the homepage contains two links – one for the homepage the other for logging in (I discuss this link later in this section). In addition to these two links, the webpage contains a brief welcome with a seemingly familiar “hi there” displayed at the top of the page. Underneath the brief welcome, is a short paragraph which describes the purpose of the web application. The short

[home](#) | [login](#)

hi there

This is a design prototype for the [Documenting the Now](#) project. Please understand that data created here can disappear at any time. By using this application you are agreeing to our [code of conduct](#). If you have any questions please let us know what you think in our [Slack](#) channel, or by emailing info@docnow.io

search: num tweets:

Created	Search	Creator	Published	Job Status	Actions
2017-12-13 18:12:39	storify	jeremyw	2017-12-13 18:13:12	FINISHED: RunFlow	
2017-11-21 23:59:15	#ndfnz	rjstein	2017-11-22 00:00:09	FINISHED: RunFlow	
2017-11-21 11:01:09	#sharecare17	rjstein	2017-11-21 11:01:29	FINISHED: RunFlow	
2017-10-17 15:56:52	nynfamily	todrobbins	2017-10-17 15:57:00	FINISHED: RunFlow	
2017-10-17 15:32:06	#NYN	todrobbins	2017-10-17 15:53:19	FINISHED: RunFlow	
2017-10-17 15:27:21	#KurdistanBlockade	todrobbins	2017-10-17 15:28:34	FINISHED: RunFlow	
2017-10-17 15:25:29	كردستان	todrobbins	2017-10-17 15:25:48	FINISHED: RunFlow	
2017-10-17 15:21:52	#Kirkuk	todrobbins	2017-10-17 15:23:23	FINISHED: RunFlow	
2017-10-17 15:19:27	#supportkurdistan	todrobbins	2017-10-17 15:19:51	FINISHED: RunFlow	
2017-10-17 06:25:35	#metoo	pattyahn	2017-10-17 06:25:43	FINISHED: RunFlow	
2017-09-19 20:25:03	#BlackTheory	BergisJules	2017-10-27 22:08:34	FINISHED: RunFlow	
2017-08-11 16:58:30	defendcville	edsu	2017-08-11 16:59:56	FINISHED: RunFlow	
2017-06-16 12:53:03	goatgate	edsu	2017-06-16 12:53:45	FINISHED: RunFlow	
2017-04-26 13:24:33	#TheSouthSudanWeWant	todrobbins	2017-04-26 13:24:43	FINISHED: RunFlow	
2017-04-19 09:23:03	#EndangeredData OR #endangereddata OR #EndangeredDataWeek OR #endangereddataweek	Joseph_Koivisto	2017-04-19 09:23:21	FINISHED: RunFlow	
2017-04-17 12:53:24	#andknuckles #sanic	despens	2017-04-17 12:53:47	FINISHED: RunFlow	
2017-04-12 10:09:46	#ferguson	Joseph_Koivisto	2017-04-12 10:09:51	FINISHED: RunFlow	
2017-03-29 17:10:39	#Mosul	todrobbins	2017-03-30 12:31:42	FINISHED: RunFlow	
2017-03-10 14:22:34	hathnrom hill	ellintnfrank	2017-03-10 14:27:02	FINISHED: RunFlow	

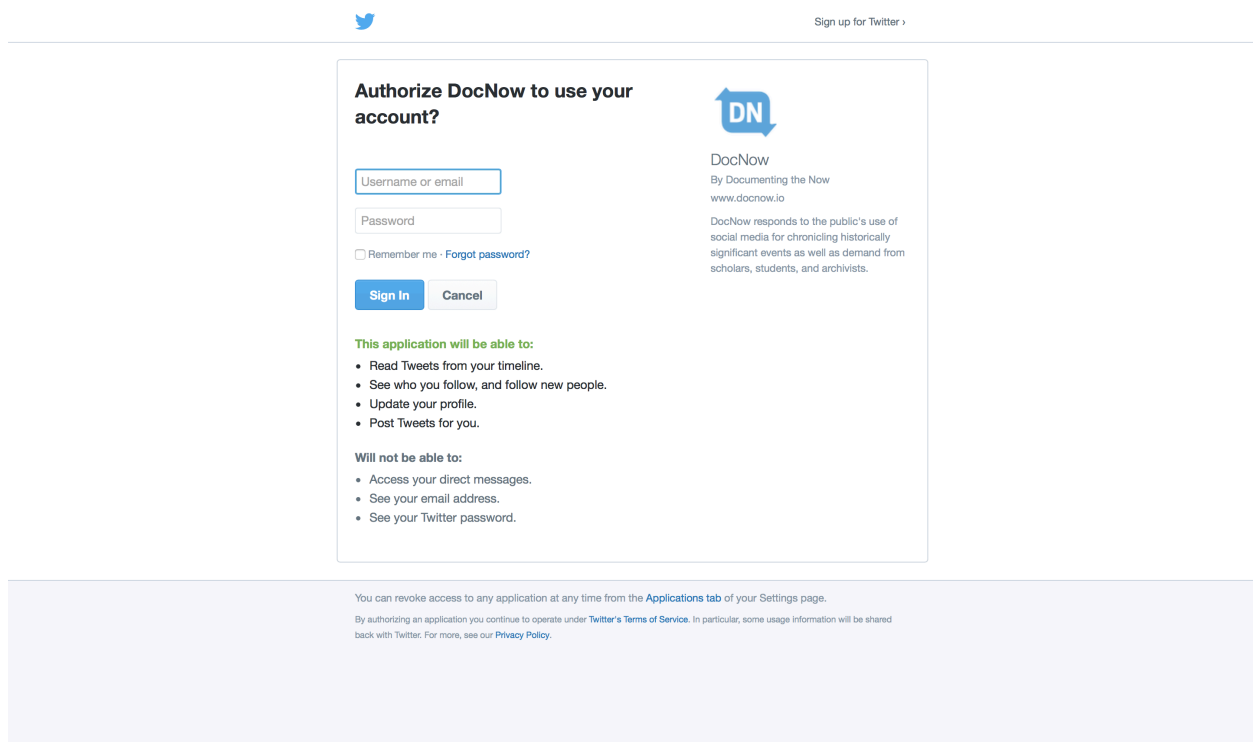
Figure 1: DocNow homepage

introduction describes the web application as being a design prototype for the Documenting the Now project. Embedded within the Documenting the Now project name is a hyperlink to the project website (docnow.io), which contains information on the project related to its purpose and who is involved.

The brief web app disclaimer notifies users that by using the application they are agreeing to the Documenting the Now project code of conduct. The code of conduct text contains a hyperlink to the code of conduct page, which is thoroughly developed to include a section on harassment, methods of reporting misconduct, consequences for misconduct, and the license and attribution. Under the harassment section, sixteen bullet points are included, which describe how harassment is defined for the project. Also, under this section, the DocNow team clearly notes that the protection of marginalized people's "safety" and "comfort" are of utmost concern. Consequences for harassment are handled by a response team, which reserves the right to "take any action they deem appropriate, up to and including expulsion from all Documenting the Now spaces..." From the language used in the code of conduct page as well as the possibility of expulsion for non-code of conduct abiding members, the Documenting the Now project team is concerned about incorporating ethical standards into not just the design but behavior of its members and leadership team. Under the license and attribution section, the DocNow team cites the basis of the anti-harassment policy to the Greek Feminism wiki (DocNow "Documenting the Now: Code of Conduct "; DocNow "Home ").

Below the introduction/disclaimer, are two input boxes, which allow the user to carry out specific searches and generate a Twitter dataset. However, in order to carry out a specific hashtag search, the user must first login. If the user chooses not to create a dataset, a default list of datasets can be perused. When the login hyperlink is clicked, the user is brought to an account authorization

page which requests to use the user's Twitter account as seen in Figure 2. On this account authorization page, the DocNow project is briefly described as responding to "the public's use of social media for chronicling historically significant events as well as demand from scholars, students, and activists." In addition to this introduction, the authorization page notifies users that by providing DocNow access to their Twitter account, the DocNow application will be able to read their timeline Tweets, see who they follow on Twitter, update the their profile, and post Tweets for the user. By authorizing the DocNow to use a user's Twitter account does not give the DocNow application access to direct messages, the ability to view the user's email address, or the capability to see the user's Twitter password.



The image shows a Twitter authorization page for the DocNow application. At the top, there is a Twitter logo and a link to "Sign up for Twitter". The main heading is "Authorize DocNow to use your account?". Below this, there are input fields for "Username or email" and "Password", followed by a checkbox for "Remember me" and a link for "Forgot password?". There are "Sign In" and "Cancel" buttons. To the right of the input fields, there is a DocNow logo and a description: "DocNow By Documenting the Now www.docnow.io DocNow responds to the public's use of social media for chronicling historically significant events as well as demand from scholars, students, and archivists." Below the input fields, there is a section titled "This application will be able to:" with a list of permissions: "Read Tweets from your timeline.", "See who you follow, and follow new people.", "Update your profile.", and "Post Tweets for you.". Below this, there is a section titled "Will not be able to:" with a list of permissions: "Access your direct messages.", "See your email address.", and "See your Twitter password.". At the bottom, there is a footer with a link to "Applications tab" and a link to "Privacy Policy".

Twitter logo Sign up for Twitter >

Authorize DocNow to use your account?

DocNow
By Documenting the Now
www.docnow.io
DocNow responds to the public's use of social media for chronicling historically significant events as well as demand from scholars, students, and archivists.

Username or email
Password
☐ Remember me · [Forgot password?](#)
Sign In Cancel

This application will be able to:

- Read Tweets from your timeline.
- See who you follow, and follow new people.
- Update your profile.
- Post Tweets for you.

Will not be able to:

- Access your direct messages.
- See your email address.
- See your Twitter password.

You can revoke access to any application at any time from the [Applications tab](#) of your Settings page.
By authorizing an application you continue to operate under [Twitter's Terms of Service](#). In particular, some usage information will be shared back with Twitter. For more, see our [Privacy Policy](#).

Figure 2. DocNow account authorization

As seen in Figure 3 of the #BlackTheory search example, this Twitter dataset was created on September 19, 2017 and contains 1,430 Tweets. Within this page, the user still has the ability to generate a new search using a different hashtag and specific number of Tweet results. However, considering this example, the most popular hashtags associated with this particular hashtag is #BlackTheory as it is the hashtag of focus. Other similar corresponding hashtags associated with #BlackTheory include “quare”, “longmemory”, and “johnblassingame” respectively. In addition to the most popular hashtags associated with the particular search hashtag, this page also displays the most mentioned users associated with the specific search hashtag. Considering this design affordance in terms of research usability, this feature has the potential to allow researchers to identify additional significant actors in political or social movements.

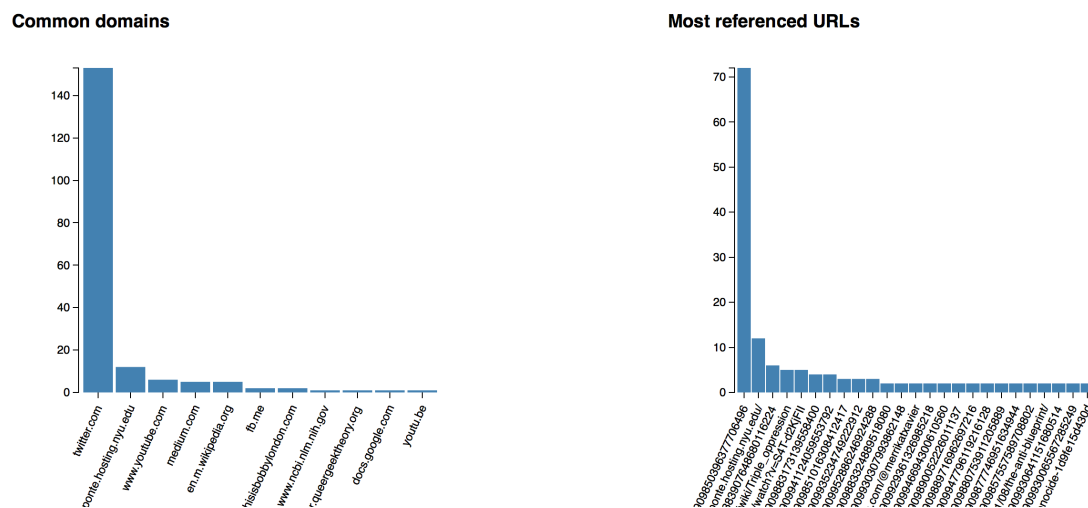


Figure 4: DocNow #BlackTheory search example common domains and most referenced URLs

Underneath the popular hashtags and most mentioned users charts, the common domains and most referenced URLs are listed as seen in Figure 4. As the name suggests, the common domains chart displays the most common website domain names associated with the hashtag in consideration while the most referenced URLs allows users to access specific URLs for the most

referenced content. One of the potential issues with some of the result names along the x-axis of the charts that the lead developer Ed Summers mentioned in a demo video (which can be found on YouTube) of the DocNow prototype, was that the content there was not fully displayed (DocNow "Docnow Demo "). Despite this aesthetic issue, users are able to click on specific domain names or URLs and visit those particular sites.

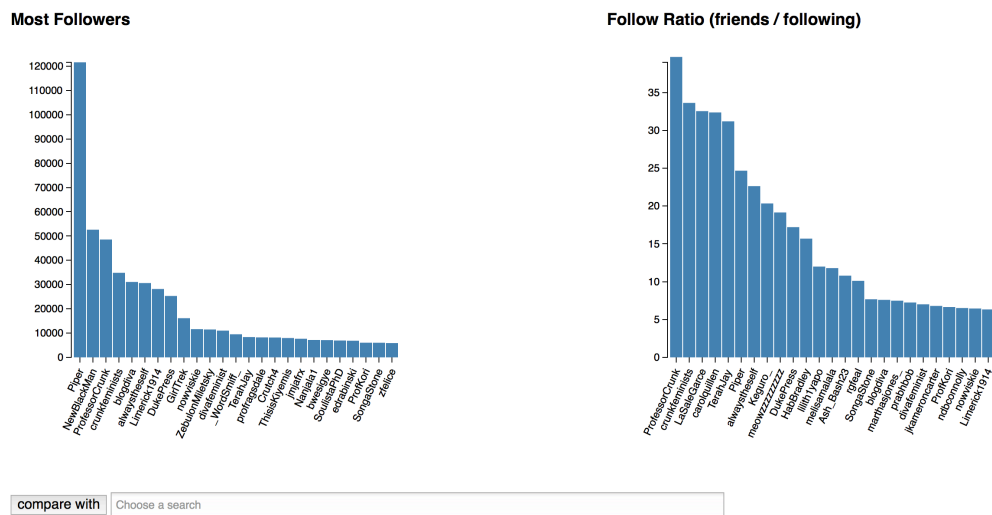


Figure 5: DocNow #BlackTheory search example most followers and follow ratio

Following the common domains and most referenced URLs charts as seen in Figure 4 are the most followers and follow ratio charts. These charts could be potentially useful to researchers in identifying important actors in specific political and social events and movements. These two charts are particularly interesting in that the most followers simply represents the Twitter users in order based upon their number of followers. However, the follow ratio chart, in relation to the most followers chart, demonstrates how a Twitter user may not have as many followers as another Twitter user (as in the case of ProfessorCrunk and Piper seen in Figure 5), but that user may follow less users. The difference between the most followers chart and the follow ratio may indicate information or social connection values of individual Twitter users. This type of analytical framing

may be important to social media researchers who are interested in the individuals involved in particular historically significant events and sociopolitical movements. These nuanced means of representation demonstrated through often minute sociotechnical constructs offer researchers the ability develop mental models for preserving historically significant and socially relevant events.

In addition to data charts, which provide researchers with information regarding meta-data sources, popular associated hashtags, well-known and most mentioned Twitter users, the DocNow application prototype also includes common images that are associated with the particular hashtag in consideration. Image results in this #BlackTheory Twitter dataset include book covers and excerpts as well as images of people (Figure 6). Beneath the common images section is a sample set of Tweets that include the specified hashtag. This sample set of Tweets is effective in providing

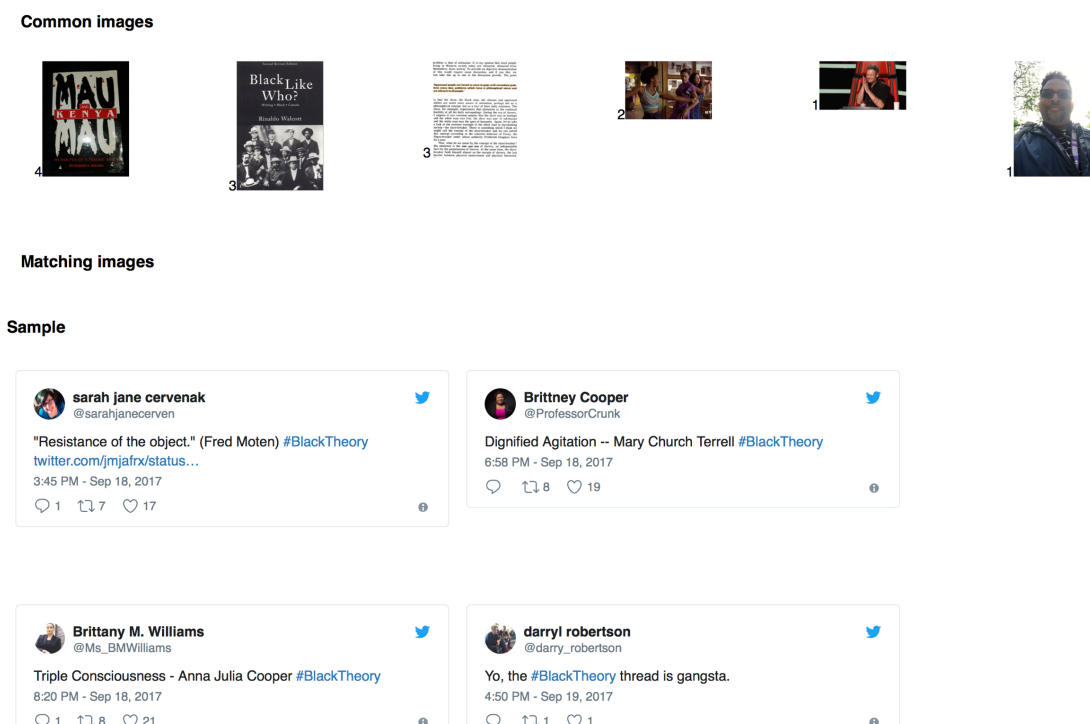


Figure 6: DocNow #BlackTheory search example common images and sample Tweets

researchers with a broader set of content that does not solely focus on active or widely recognized Twitter users. Additional content from non-iconic users is a crucial aspect in ensuring that the narrative threads identified by researchers is reflective of a broad body of content producers.

Because DocNow is committed to providing social media research tools and access to both scholars and social justice and activist minded individuals, a hyperlink to download a complete package of the charts is located below the sample Tweet set is. In addition, further hyperlinks for the individual raw data are provided as CSV files with the exception of the tweet-ids data which is saved as a txt file (Figure 7). The download options provided are in line with the DocNow project goal of providing researchers access to knowledge through digital tools. In addition to the sample tweets discussed above (Figure 6), the top retweets are displayed as well (Figure 8).

Raw data

Download the raw data behind these charts as [one complete package](#) or pick them out individually:

- [count-domains.csv](#)
- [count-followers.csv](#)
- [count-hashtags.csv](#)
- [count-media.csv](#)
- [count-mentions.csv](#)
- [count-urls.csv](#)
- [follow-ratio.csv](#)
- [retweets.csv](#)
- [tweets.csv](#)
- [sample.csv](#)
- [tweet-ids.txt](#)

Figure 7: DocNow raw data

The top retweets include a greater variety of representation in that users that have the most retweets may not necessarily have the largest following but the content they generate still has an impact on the networked communication that takes place through the use of specific hashtags as in the #BlackTheory example. With the tweet samples generated, users have the ability to alter the number displayed (Figure 9). This affordance allows users to control and curate the data generated.

Top Retweets

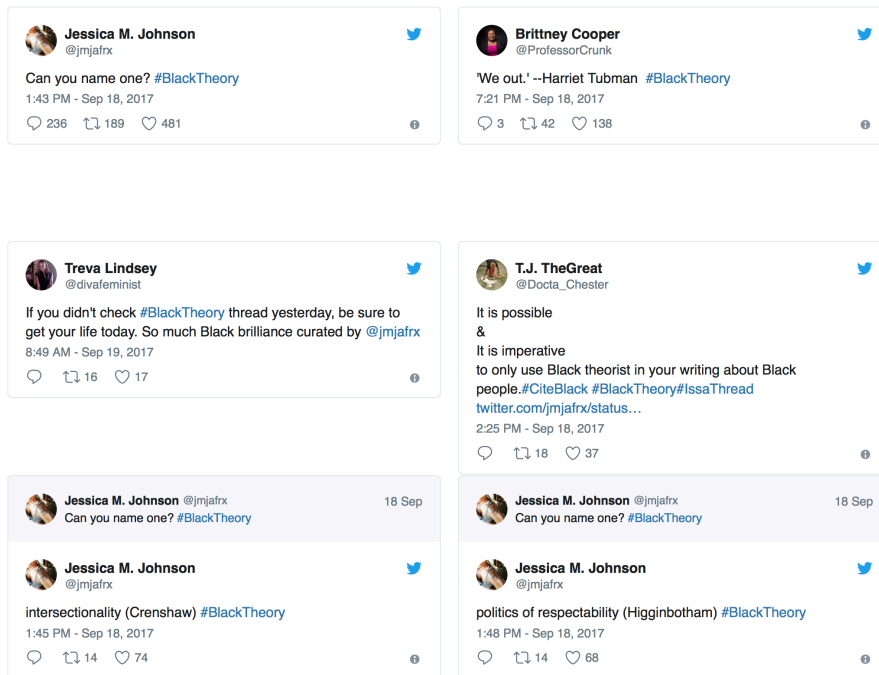


Figure 8: DocNow #BlackTheory top retweets

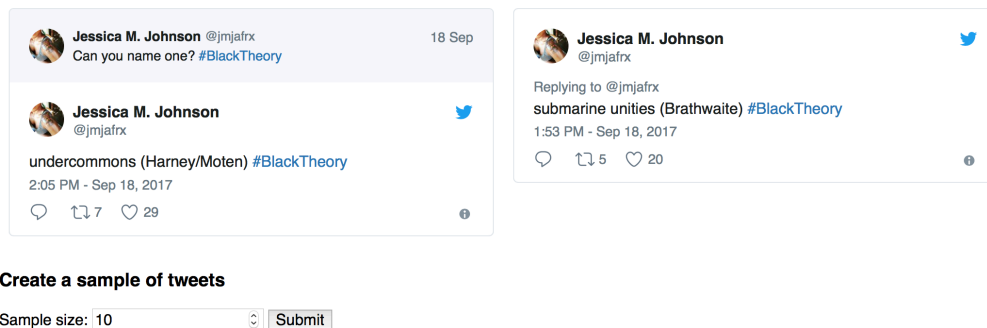


Figure 9: DocNow #BlackTheory create a sample of tweets



Figure 10: DocNow creator example

The DocNow web application prototype affords users the ability view the creators of specific datasets. This information can be accessed either from the homepage (Figure 1) or at the hyperlink located at the top of the dataset page (Figure 3). When accessed the creator hyperlink, as in the case of the #BlackTheory example whose creator was @BergisJules, brings the user to the creator's Twitter page (Figure 9). This is one of the reasons users attempting to create and access Twitter datasets are required to agree to the DocNow Twitter account access authorization (Figure 2).

Summary of DocNow Application Design

The objective of the DocNow project is to provide archivers, scholars, and the interested public with an open-source, cloud compatible tool for analyzing, chronicling, and preserving Twitter posts and their related metadata in response to historically significant events. However,

this objective is also based out of a concern for archiving digital data in an ethically conscious manner. In a presentation discussing the affordances the DocNow Project uses in order to begin the process of embedding ethics within their social media archiving prototype, eight affordances are listed, which include: notification, opt-out/in, data retention policies, Tweet IDs and Hydration, traditional knowledge labels, warrant canaries, appraisal, and deed of gift (Appendix A).

Through analyzing this prototype, I have identified, in addition to the abovementioned ethics values, further values though subtler which may also be attributed to ethics values. In discussing these additionally identified values that are expressed through the DocNow prototype, I focus on information type and representational modes. With regard to information type, there seems to be a particular emphasis on providing researchers with the means to identify individual figures within historic events. The DocNow prototype enables researchers to identify both prominent information sources and influencers, users who have a large following that both consume and multiply their posts through, in this case, retweets (Anger and Kittl). While there appears to be an interest in identifying influencers as well as the sources that generate the most circulated content, DocNow also provides additional sample Tweets (Figure 6) for specific hashtag searches. This combination of Tweets from users with highly retweeted posts as well as from users whose posts are not as widely circulated creates an environment where multiple voices and perspectives can be observed and analyzed in relation to a greater social context.

In terms of the emphasis in data representation, the DocNow prototype is analytical in nature. While there are various methods for visualizing the networked communication that takes place through Twitter posts, such as through network diagrams and informational maps, the DocNow prototype is primarily analytically-oriented. However, this design decision may be contributed to the project's objective in providing researchers with the tools for analyzing,

chronicling, and preserving Twitter posts as opposed to providing interpretive content. This transparency in the structuring of the data resources seems to afford users with the ability to engage the data independently and draw original conclusions. However, the lack of network-oriented data visualization may present a challenge in providing users with the means to draw more far-reaching conclusions that extend to more socially and historically encompassing analyses.

Technical Analysis

Because DocNow is an open-source tool, it is hosted on the software development platform GitHub and is available for download. On the DocNow GitHub page, the project is described as involving four components: a client-side application (React), server side RESTP API (Node), a document database (ElasticSearch), and a message queue and stats database (Redis) (DocNow "Github"). In line with the DocNow project objective of providing an open-source social media archiving tool, the platform and database structures from which the project is developed are all open-source (Peet "Docnow: Saving Social Media"). On the DocNow GitHub page, directions are provided for downloading the tool. The instructions indicate to first download Git, a version control system for monitoring changes made in files, and Docker, a container platform that unlike virtualized hardware improves cloud efficiency by sharing operating systems (git; docker). Once Git and Docker have been downloaded, the instructions indicate to clone the DocNow repository from <https://github.com/docnow/docnow> and `cd docnow`. Next in order to start the DocNow application, the user runs `docker-compose up` from the project directory and then opens <http://localhost:3000> (DocNow "Github"). By providing such explicit instructions and using open-source platforms, it appears that the DocNow project is maintaining their interest in both access and ethics even down to the digital infrastructure of the project.

When DocNow Emerged

As mentioned previously, DocNow was created as a project commissioned by the Andrew W. Mellon Foundation in response to the 2014 Ferguson protests. The purpose of the project was to preserve the massive chains of communication carried out via Twitter posts, which have now seemed to historicize the tragedy surrounding Michael Brown's death and the related events in a strongly personal way (Peet "Documenting the Now Builds Social Media Archive"). While DocNow was seemingly created in response to the 2014 Ferguson protests, the deeply rooted social unrest that resulted in the Ferguson protests as well as the unprecedented social network cries for justice were products of historic injustice and frustration. Just a few months prior to Michael Brown's death, Eric Garner of New York was also victim of video-recorded police brutality (Carney). The significance of DocNow in comparison to other social analytics tools, like Keyhole and BuzzSumo, is that DocNow developed as a research project in response to social interests, social unrest, and social action towards discriminatory systemic practices.

Although DocNow developed in response to the death and protests which occurred as a result of Michael Brown's death and the non-indictment of the police officer which shot him, in highlighting the significance of social media in political mobilization and networked activism, I recognize that this was not the first incident where social networks served as mechanisms for political mobility, as other cases, such as the Occupy movement and Arab Springs uprising which Zeynep Tufekci discusses in her *Twitter and tear gas: The power and fragility of networked protest* work as involving social media in conjunction with pre-existing social infrastructure, clearly describes the weaving of social media in political mobilization and how this affects the way historical events unfold and are narrated. Moreover, on a broader level both internationally and with other domestic protests, the emergence of DocNow could be as viewed as in dialogue with

an emerging interest in both research surrounding social issues, social analytics, and the people being studied. While DocNow's emergence can be viewed as in dialogue with a broader global emergence of social networked protests, which developed through the infiltration of social media platforms that facilitated the connecting of individuals across temporal and locational barriers, in terms of a considering the domestic significance DocNow emerged as both an archiving tool and a mouthpiece to call for the ethical handling of research, especially as it regards the handling of data and the corresponding real-life narratives of the individuals being studied.

Where Does DocNow Infiltrate

As suggested in the above section, DocNow is situated at the intersection of social research which seeks to ethically incorporate the narratives of the individuals being studied in an ethical manner. DocNow is not only concerned with incorporating the actual narratives of individuals being studied, but DocNow is also concerned with incorporating the individuals who are being studied in determining how the research is carried out. Ethically minded social media archiving platforms like DocNow and the prototype, which I have developed in response to DocNow and informed by the digital ethics framework recommendations I developed for social media archiving applications sit juxtaposed amongst weighty social, historical, and political challenges, which have far-reaching roots in hegemonic structures. These challenges are likely unable to be resolved entirely through research responses like DocNow and ethically informed digital ethics frameworks like the one I suggest in this research. However, in my research, as in the research of DocNow I believe, is not to solve all of these challenges, but rather to attempt to bring change that is desired by those at the heart of research interests. Thus, this change cannot take place without addressing deeply rooted hegemonic social structures.

Moreover, in analyzing DocNow, I view it as infiltrating a series of verticals. However, in considering a broader encompassing range, from my analysis, I view DocNow as principally infiltrating the social conscious of society via history making through social analytics that seek to incorporate the individual narratives in historicizing events. Additionally, I view DocNow as infiltrating the social construct of how research is carried out by purposely aiming to address digital colonialism in social media-based research. In an age where data is essentially currency, the fact that DocNow explicitly purposes to carry out its research in a manner that counters historic and current hegemonic practices that view research subjects as resources is significant in challenges researchers and publics being studied in rising about historic research practices that perpetuated marginalizing practices. Finally, I see DocNow as having the potential to diminish the distance between researchers and those being studied. I will discuss this ideal further in the analysis of the digital ethics framework recommendations and social media archiving tool which I have created in response to DocNow. However, to briefly touch on this subject, I see great potential in the value sensitive design interest of research tools like DocNow in creating a collaborative research environment, which responds to the research interests of research publics.

Why DocNow and Social Media Archiving

A myriad of reasons why DocNow and value-based social media archiving are significant and needed can be teased out with various perspectives. However, for the case of this research which is in dialogue with an emerging interest in social media archiving that addresses historically structured hegemonic structures which influence how narratives are crafted and who has the ability to influence the patterns used in the narrative threads woven to depict historic accounts, I identify the overarching value as to the why behind DocNow and value-based social media archiving in general as found principally in the areas mentioned above where I recognize DocNow as

infiltrating and potentially influencing the social conscious of society via history making, the social constructs which shape how research is carried out and expected to be handled, the gap between researchers and those being researched. Before I continue further as to the import with DocNow and continuing development in social media archiving, which I propose, question, and analyze in this research, I would like to again reference Melinda Robin's in her *Are African Women Online Just ICT Consumers*, where she recognizes that neither naïvely celebrating information communication technologies nor rejecting them as a purely colonialist in nature is beneficial in ascertaining the full scope of information communication technologies (Robins).

Using a similar conceptual framework as Robin, I stress that the value in researching, suggesting proper use of, and utilizing social media archiving tools cannot be perceived in a naïve, overly optimistic manner. Likewise, in the spirit of Robin's above statement, neither do I consider social media archiving being devoid of true value as not being able to promote positive change in how research concerned with marginalized groups is carried out (Robins). Therefore, in the following subsections considering the value behind DocNow and value-based social media archiving, I attempt to present the import of DocNow and value-based social media archiving with a balanced perspective that considers the current and past state of societal factors which influence research. In the following section, I also attempt to imagine a future where such value-based research practices are mediated by specific environments.

Social Conscious

In the next section, I expound further into the socio-historical significance of DocNow and social media archiving and its ability to influence the perceptions of African Americans as well as the influence African Americans have on research that directly relates to them and which should consequently involve their perspectives and input. However, to provide a brief perspective into

how the potential effect of DocNow and value-based social media archiving, I will principally focus on the ability of value-based social media archiving platforms as having the ability to counteract the effects of hegemonic structures, which have historically and systematically limited the ways in which marginalized individuals participate in the narrative construction of their own personhood. In critical race theorist Tara McPherson's *Why Are the Digital Humanities So White? Or Thinking the Histories of Race and Computation*, McPherson discusses the need to no longer separate cultural, ethnic studies from "code studies." In analyzing the development of UNIX, which spawned from work surrounding Project MAC and the subsequent MULTICS (Multiplexed Information and Computing Service) in the 1960s, McPherson describes the parallel history of race in America and the developing operating systems and how the "organization of information and capital in the 1960s powerfully responds – across many registers- to the struggles for racial justice and democracy..."(McPherson) .

Social Construct

In considering how DocNow and value-based social media archiving may positively influence expectations as to how research focused on African Americans is carried out, I draw from John D Martin III and Carolyn Runyon's *Digital Humanities, Digital Hegemony* work, which utilizes critical race theory in investigating discriminatory funding practices that influence how non-white historical figures are represented or excluded from research projects funded by the National Endowment of the Humanities (NEH). Since Martin and Runyon's work centers around funding practices of NEH, which they documented as providing \$225,462,386.29 for 656 individual grants projects from January 1, 2007 to September 30, 2016 focused on digital cultural heritage, the funding practices which they uncovered as having cultural hegemonic tendencies have far reaching consequences. In the projects Martin and Runyon's examined in their research,

the majority of them focused on white men and treated them as individual figures in specific projects as opposed to other projects which focused on race and women as collective groups (John D. Martin and Runyon). DocNow and continued development in value-based social media archiving present the opportunity to not only give voice to individual black figures but to also highlight the collective historicized narratives of African Americans in a manner that utilizes their personal voice through Twitter posts. Additionally, DocNow and value-based social media archiving have the potential to alter the expected social construct for how research is carried out by changing expectations of how research should both represent and include African Americans.

Diminishing Distance

As DocNow and value-conscious social media archiving tools emerge and seemingly close the distance between researchers and the publics in which they are interested, not only are social representations of the groups studied influenced by the individuals' own narratives, but areas of importance and value to the individuals being studied can be uncovered. The possibility of integrating working values into research is one in which I am principally interested in as a point of further development of social media archiving tools. While DocNow was developed by employing a Value Sensitive Design approach, which incorporated the perspectives of individuals in a focus group who were likely subjects of the data to be gained through the Twitter posts, as Le Dantec et al. in *Value Sensitive Design as Lived Experience: Evolving Value Sensitive Design to Support Value Discovery* suggest, values should be employed through design by both focusing on a local context and constantly reflecting on and attempting to discover an evolution of values (Le Dantec, Poole and Wyche). This area of continued value discovery is one in which I believe further development in social media archiving tools, as in the one in which I develop and discuss in this study, will be especially valuable. Moreover, as the distance between researchers and those being

researched is diminished, greater refinement of values in how research ethics can become a work in progress as opposed to a fixed, irrelevant structural framework will be needed.

Chapter 4

Product Need

Socio-Historical Background and Significance within New Media Studies

Social media archiving applications, like DocNow, have significant historical import, especially as it regards the historical situatedness of African Americans and the continued challenges associated with African American representation in society. Previous cognitive studies have sought to understand the psychological processes which influence the development of stereotypes and intergroup behavior (Hamilton; Dovidio, Evans and Tyler; Judd et al.) While psychologist are still seeking to understand the inner psychological processes which influence prejudice and intergroup behavior, it has been acknowledged that negative stereotypical representations of African-Americans in historical and cultural narratives have often negatively impacted the manner in which other ethnic and racial groups interact with and perceive African-Americans (Bonilla-Silva). At times the stereotypes of African Americans by other racial and ethnic groups have resulted in misunderstandings, socio-political oppression, and in severe cases violence against African-Americans. In the aforementioned cases, media and political communication have been identified as significant sources for developing stereotypical images and negative representations of African-Americans (Hurwitz and Peffley).

While media and political communication have played significant roles in how African Americans are represented in cultural narratives, the roots of this biased misrepresentation are deeply embedded within an intricately webbed historical framework (Fredrickson). In terms of the framing of the historical situatedness which has influenced the abovementioned oppression and misrepresentation of African Americans in media and culture, it stems largely from the issue of black bodies as being a site of politics and commodification (Jackson). The following brief

historical review highlights typical instances of systemic racism against blacks as well as the related tendency of objectification. The 19th century practice of craniometry, which sought to objectively prove the physical and consequent intellectual inferiority of blacks and women, was a direct attempt to scientifically demonstrate the superiority of white men (Landrine). Saartjie Baartman, the South African woman who was exploited and used as a public spectacle, is a specific 19th century example which demonstrates how black bodies have been historically objectified and commodified while the trans-Atlantic slave trade is a broader example of the commodification of African Americans (Young). In terms of later social practice, Blackface demonstrates the informal cultural integration of white supremacist ideologies against black bodies even up until the 20th century (Gubar). The previously mentioned examples are demonstrations of systemic societal racism against African Americans carried out through objective means of oppression. However, these examples only touch the surface of a myriad of other horrendous acts against African Americans. The issue of black bodies as being a site of politics and commodification is still seen in institutionalized systemic racism and physical brutality against African Americans (Clarence).

Despite deeply rooted hegemonic ideologies that marginalize African Americans and operate by restricting African American representation and voice in media, politics, and academics, new media studies have acted as a means to counteract this hegemonic opposition through the creation of digital artifacts which speak to the African American experience and subsequently promote academic discourse. New media studies approaches are rooted in cultural critiques and postcolonial works such as Sherry Turkle's *Epistemological Pluralism: Styles and Voices Within the Computer Culture* and Gayatri Spivak's *Can the Subaltern Speak?* respectively, which challenge societies' approaches in questioning, gathering, analyzing, and representing the experiences of various cultural, ethnic, and racial histories, narratives, and perspectives (Turkle

and Papert; Spivak).

Within the same vein of new media studies, the domain of Black Digital Humanities, is an emerging academic discipline that seeks to investigate the formation of African American experiences represented through both formalized and informal technologically based digital artifacts (Gallon). This domain of socially and culturally based intellectual inquiry is currently headed by academic departments, such as the University of Maryland, the University of Kansas, and Washington University. Within the domains of new media and black digital humanities, one specific area that is emerging as an area of increased discourse and investigation is that of black social media analysis and archiving as a means to represent and preserve experiences and perspectives, especially in regard to historically significant events (Service). Although technologies are being developed to both document and preserve African American experiences and perspectives in regard to historically significant events through social media, work surrounding developing a digital ethics framework that addresses the historical and social challenges surrounding archiving and preserving African American experiences is still needed.

Black Twitter: Engagement and Use

While in the previous sections I have discussed the socio-historical significance of DocNow and its social implications as it regards the historical situatedness of African Americans and also the ethical implications as it relates to digital colonialist tendencies prevalent in technologies, in this section, I will discuss the significance of using Twitter as the social media platform in DocNow and in the prototype I have developed in conjunction with the ethics framework research of this thesis. Although research demonstrates that Twitter is not the most used social media platform among Internet using American adults in comparison to other social media networks like Facebook and Instagram, Twitter, with its communication constraints of a

maximum 140-characters per post, is a micro-blogging site which offers a unique digital architectural structure that allows for significant interactions and intercultural networking, especially amongst African Americans as represented in the following charts (Duggan; Florini).

Chart 1 and Chart 2 reflect data from the Pew Research Center Social Media Research Update 2014, which was released in early 2015 (Duggan). From Chart 1, it appears that Twitter is not as significant of a social media networking platform in relation to its competitors, with Facebook being the most used by American Internet users. However, when considering race, as seen in Chart 2, Pew Research Center reports that 27% of Black Americans use Twitter compared to 25% and 21% of Hispanic and White American online users respectively.

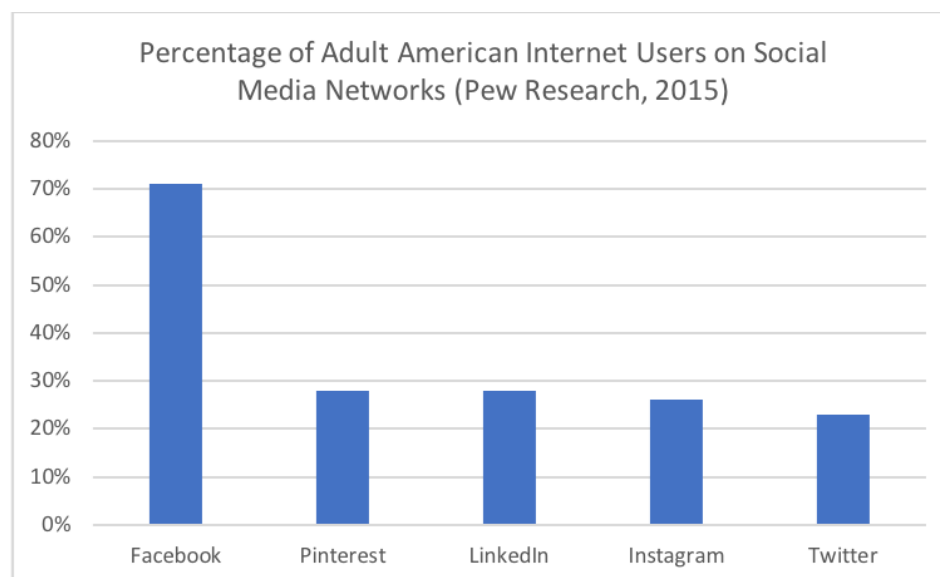


Chart 1. Chart demonstrating the percentage of American Internet users on Facebook, Pinterest, Instagram, LinkedIn, and Twitter based off of (Pew Research, 2015)

In terms of investigating deeper into as to why Twitter has become both a communication and social media networking tool of interests for African Americans and how Twitter data have become a source of interest for researchers, existing research developed within technocultural

discourse, communication studies, and information management provide insight into this burgeoning field of investigation. To gain a comprehensive understanding of how Black Twitter has developed as a field of study and what it means in a broader research context in relation to social networking research, I have synthesized perspectives from research specifically focused on the domain of Black Twitter as well as sources that investigate how Twitter is being studied as a site of research and investigated for its social import as part of a larger network.

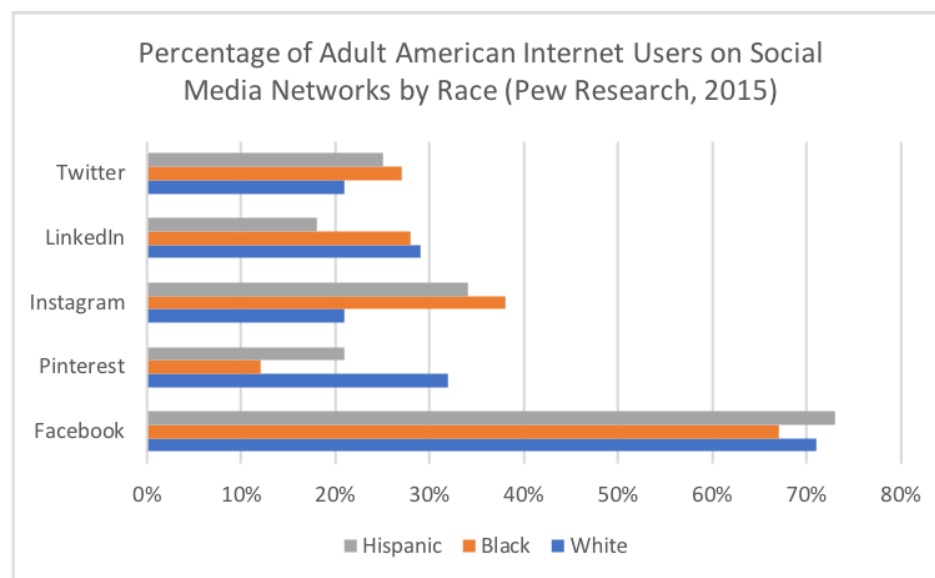


Chart 2. Chart demonstrating the percentage by race (Hispanic, Black, and White) of American internet users on Facebook, Pinterest, Instagram, LinkedIn, and Twitter off of (Pew Research, 2015)

Considering Twitter, in general, and how it has evolved as a site of research and what information is often of interest for researchers, Shirley Williams et. al (Shirley, Melissa and Claire) in *What do people study when they study Twitter? Classifying Twitter related academic papers*, carried out a review of literature on Twitter as a research subject and discovered through a classification of the 575 identified research papers on Twitter research from 2007 to 2011 that content within this domain of study often centered around the content of individual messages and

message exchanges (61%), identifying users as well as lists of who users follow (21%), research dealing with both hardware and software related to Twitter (10%), and concept work related to overviews of the field and discussion pieces (8%). Moreover, in terms of the message, this information related to the content within identified Twitter posts and their corresponding metadata while the user in this case related to the users of the Twitter posts in consideration and their projected online identities and how this related to who they followed. As it regards technology, these papers centered around both the hardware used in APIs for system implementation and the software used for sending messages (Shirley, Melissa and Claire).

In the work developed by Shirley et al., the authors describe the range of study using Twitter as a site of focus ranging from statistical to anthropological work. Since Shirley et al. wrote the abovementioned piece in 2011, research surrounding Twitter data and interactions has broadened even further. Within this wide range of research investigation, Black Twitter as a discipline has also emerged as evinced by work developed related to the socio-technical conditions that have facilitated this social networking phenomenon, the cultural and linguistic patterns which can be observed through Twitter posts and exchanges, and the affordances which facilitate socio-political mobilization (Shirley, Melissa and Claire; Brock; Jones; Florini). For many African Americans Twitter users, the microblogging site serves a multipurpose mechanism for playful interactions and social reprieve, intellectual engagement, media circulation and commentary, cultural remix, and social mobilization as witnessed through various social movements, like #Ferguson, #BLM, and #handsup. However, for the purposes of this research which is primarily concerned with the social mobilization aspect of Twitter as a site of engagement for African Americans specifically for historically significant events as in the 2014 Ferguson protests, I will discuss both research that explores the type of interactions and communication that takes place on

Black Twitter, and I will also examine research which demonstrate how Twitter's technical affordances allow the micro-blogging site to be a significant locus for political and social mobilization for black users.

In *Tweets, Tweeps, and Signifyin'*, Sarah Florini describes the verbal performance that Black Twitter users engage in on the social media platform. Although due to the constructs of online engagement, race, along with other identity components, can be concealed or reconstructed from their non-virtual representation, perhaps allowing black users the ability to navigate through cyberspace with less of the marginalization and stereotyping that is often targeted towards African Americans in non-digital everyday interactions, many black users not only visually represent themselves as black on Twitter but also engage in cultural interactions which typify African American cultural patterns. Part of the signifyin' which Florini discusses is the verbal performance which many African American Twitter users take part in through Tweet exchanges.

While the architecture of Twitter may hinder some aspects of African American verbal performance, such as ensuring that the phonetic integrity of various words and phrases are accurately represented in written form, Florini emphasizes the audience integration element which Twitter facilitates, which is a significant element of the verbal performance associated with some African American communication practices. Moreover, Florini highlights the aspect of quick interaction which also aids in the performative nature of some black Twitter engagement (Florini). How language and communication are performed within the domain of Black Twitter is of interest for researchers like Taylor Jones who in *Toward a Description of African American Vernacular English Dialect Regions Using "Black Twitter"* discusses her research involving geotagging Twitter posts with black vernacular. Researchers like Jones and Florini, as discussed above, realize the dynamic qualities of African American communication patterns and seek to use technology

and social media platforms to identify how culture, community, and identity are played out by African Americans on social media platforms like Twitter (Jones; Florini).

While I have discussed research that examines the linguistic and cultural interaction that takes place on Black Twitter exchanges, this phenomenon which often takes place in a performative way would not occur on Twitter without technological mediation. However, it should also be noted that the cultural and communicative performances which take place on Black Twitter are not limited to surface level interactions and entertainment. Rather, the technological affordances, which Twitter offers that enable the performative element of Black culture promote a level of engagement that has further reaching social and political implications. Considering this deeper level of technological implication, in this section, I move from considering the communicative and expressive nature of Black Twitter and further into considering the technological affordances that make Twitter a gathering site for black users which enables specific, multi-dimensional forms of communication and engagement that develop the basis for mobilization channeled towards serious social and political purposes.

Twitter, as a tool for networked communication and political mobilization, has been studied by a myriad of researchers. A brief overview of these works include Papacharissi in *Affective Publics: Sentiment technology, and politics* where Papacharissi examines the role of affect on social media political mobilization, Zeynep Tufekci in *Twitter and tear gas: The power of fragility and networked protests* where Tufekci analyzes the Arab Springs uprisings, and Yannis Theocharis et al. in *Using Twitter to mobilize protest action: online mobilization patterns and action repertoires in the Occupy Wall Street, Indignados, and Aganaktismenoi movements* where the similarities and differences of how significant movements used Twitter are analyzed (Papacharissi; Theocharis et al.; Tufekci). While these works as well as several others explore the

use of Twitter as a means of developing capacities in enabling political action through protests and demonstrations, in this thesis I am primarily considered with Black Twitter specifically as a mechanism for political expression for African Americans and how this is situated within research. Consequently, in examining Twitter as a tool for political engagement, I have considered works that are concerned with Black Twitter and the supporting infrastructure which makes Twitter a popular social networking site for African Americans.

In expanding the consideration of Black Twitter from a site of play and performance to politics and mobilization, I draw from two principle media race studies works, which investigate the technological affordances of Twitter as well as the correlating social implications. The precedent research from which I draw principally in this section includes André Brock's *From the blackhand side: Twitter as a cultural conversation*, which analyzes Twitter's interface and associated practice and Yarimar Bonilla et.al's *#Ferguson: Digital protest, hashtag ethnography, and the racial politics of social media in the United States* which looks into how #Ferguson became an influential rallying signal. Both Brock and Bonilla explore how Twitter has become a significant site for cultural and individual expression, connecting, and political mobilization for African Americans (Brock; Bonilla). I use these works by Brock and Bonilla to explore the idea of the centrality of language and performance in African American culture as central sources of expression and connection and how this extends to broader socio-political implications and is mediated by Twitter's architecture and affordances.

One of the principle reasons Twitter is popular amongst many African American users is due to its simplistic design. Brock discusses this in *From the blackhand side: Twitter as a cultural conversation* when he identifies minimalism and malleability as two of Twitter's affordances which are appealing to African American users. Brock attributes this to the fact that many African

Americans access Twitter from their mobile devices. Therefore, having a simple design layout is central in making the user experience uncomplicated by a distracting flow (Brock). Brock also references Mark Granovetter in describing how Twitter's infrastructure support the formation of weak ties due to the immediacy of contact and response. Likewise, in *Tweets, Tweeps, and Signifyin'* which I discussed previously, Florini highlights this aspect of Twitter's infrastructure as enabling audience participation (Florini). Audience participation is mediated through what Brock references in Honey and Herring's description of addressivity as mediated through the @ feature and following other Twitter users which Brock discusses in relation to Zhao and Rosson's work in *How and why people Twitter: the role that micro-blogging plays in informal communication at work* (Brock; Honey and Herring; Zhao and Rosson).

Moving more towards the elements of Twitter which have brought Black Twitter to the forefront of non-black culture as well as enabled political activism, especially as witnessed in relation to the 2014 Ferguson protests, I consider Yarimar Bonilla et al.'s *#Ferguson: Digital protest, hashtag ethnography, and the racial politics of social media in the United States*. Bonilla et al. look at "hashtag activism" in an attempt to understand how social network sites, specifically Twitter, mediate political action. In their analysis, Bonilla et al. like Brock highlight the hashtag as a means to take advantage of Twitter's trending algorithm and bring topics related to Black Twitter to the forefront of information flows (Bonilla; Brock). Likewise, Bonilla et al, describe Black Twitter as significant in presenting counter narratives and reimagining group identities. Individual Twitter narratives help bring out individual narratives, which is significant as traditional government funded-digital heritage projects often focus on the collective struggle of African Americans as opposed to the validity of individual perspectives and experiences (Bonilla; John D. Martin and Runyon).

Chapter 5

Developed Artifact

Ethics Framework Analysis

Information and Communications Technology

Information and Communication Technology (ICT) is an umbrella term for the myriad of technologies that affect our everyday lives through realized and unrealized use and interaction. For the purpose of analyzing current ethics frameworks in which social media archiving has a basis, I selected ICT ethics as an initial point of analysis due to the far-reaching implications of ICTs. While the social media archiving digital ethics framework recommendations and corresponding social media archiving prototype developed through this research are keenly focused on representing the values of potential research subjects as focal points for framing ethics and incorporating ethics values into the design of a social media archiving application, I also realize that other structures and actors are associated with such a tool (Latour and Porter). Moreover, social media archiving is not an isolated phenomenon but rather more of an assemblage of actors, whose framing may have bearing on social media related research developments. Consequently, in looking into ICT as a broad category from which to draw ethics interests, I was able not only to consider how different ethics values maybe in dialogue with the perspectives of individuals whose Twitter posts may be used for research purposes, but I was also able to gain additional insight in attempting to begin the process of creating dialogue surrounding developing digital ethics framework recommendations.

One of the initial works bringing to light ethics issues with Information and Communication Technology was Metaphilosophy's 1985 prize-winning essay "What is Computer Ethics?" by James Moor. In this essay, Moor begins questioning the role and abilities of computers

in the lives of humans. Pivotal to Moor's discussion on computer ethics is the relationship between humans and computers (and their corresponding software) and what policies and guidelines need to be implemented in order to address the myriad of questions regarding impact. Central to Moor's discussion is the concept of invisible abuse. To provide a brief overview of Moor's considerations of invisible abuse, he categorizes invisible abuse as possibly taking place on three levels, invisible operations for unethical conduct, invisible programming value, and invisible complex calculations. In addition to these cases of concern which Moor discusses, he also highlights issues of privacy. Although, Moor's prize-winning essay was written in 1985, the implications of the ethics concerns which he addresses, especially as it relates to lack of transparency in computer programs and their effects on publics, are still in discussion today as seen in the following discussion (Moor).

As in Moor's essay, privacy is a common area of concern and discussion in more recent works related to ICT ethics. Both Rafael Capurro in *Digital Ethics* and Göran Collste in *Global ICT Ethics* discuss the need for privacy and the challenge in defining it in ICT research (Capurro; Göran). Issues of privacy are especially important and challenging in social media research as so much user information is available seemingly for public view; however, ethics in handling such information is still expected by publics as discussed previously in Chapter 2 (Beninger et al.). Likewise, privacy is a challenging topic due to cultural differences in how privacy may be defined. However, one definition found in *ICT and Value Sensitive Design* which seems to sufficiently characterize privacy is "the individual's right to control the circulation of information concerning him or her" (Van den Hoven). Moreover, privacy is especially important in social media archiving particularly of traditionally marginalized groups due to interests both in ensuring representation but also rights to anonymity and confidentiality. How individuals whose data are used in research are able to control the flow of their data is significant (Van den Hoven),

and approaches addressing how these challenges can be mitigated in social media archiving and in digital ethics framework guidelines will be further discussed in later sections.

In addition to privacy, digital ethicist Rafael Capurro highlights information overload, the digital divide, gender discrimination, and censorship as objects of ethics concerns (Capurro). The aspect of managing information overload is significant in the context of social media archiving not only due to the amount of information that is presented but also in regard to ensuring that individual narratives are presented and characterized appropriately. Massive flows of information may present the tendency to simply create overarching narratives; however, the preservation of individual narratives is important to the integrity of the overall narrative as discussed in the DocNow focus group session “Social Media and a Record of the Movement”. Addressing the challenges associated with the digital divide speaks to the conflicts between digital colonialism in research practices and deals with discrepancies in technical literacy between researchers and subjects of research (Jandrić and Kuzmanić). Considering gender discrimination, Capurro asserts the promotion of gender equality and women’s rights. Another object of ethics concern Capurro discusses is censorship. Digital ethics, Capurro posits, should ensure human’s rights to communicate (Capurro). Promoting freedom of speech is also discussed by Collste in *Global ICT Ethics* as an important value in ICTs (Göran).

Although not an explicit ethics value, in *ICT and Value Sensitive Design Values* Jeroen van den Hoven asserts that analysis regarding how to implement values in design should be made in advance prior to building out a system or tool (Van den Hoven). As previously stated, that recommendation is also the motivation behind this research. Moreover, Van den Hoven’s suggestion regarding prior consideration to values ties into the value of transparency in research, which Collste in *Global ICT Ethics* categorizes as one of the ethical implications of ICT research.

While, Collste does not go further into how transparency can be implemented in design, tying in Moor's considerations of the three levels of invisible abuse, invisible operations for unethical conduct, invisible programming value, and invisible complex calculations, the value of transparency can be conceptualized in those verticals as an entry point (Van den Hoven; Moor; Göran). In addition to transparency, freedom of speech and responsibility were mentioned as ethical values in *Global ICT Ethics*. While freedom of speech is a familiar right as defined by the U.S. Constitution's First Amendment, it is less clear what Collste suggests in her mentioning of responsibility (Göran). However, I consider she posits responsibility as dealing with the aspect of accountability on the side of researchers.

In examining ICT ethics research and their supporting values, privacy, information overload, the digital divide, gender discrimination, censorship, freedom of speech, transparency, and responsibility surfaced as objects of ethics concerns (Göran; Capurro; Van den Hoven). Considering values in ICT ethics guidelines expands the empirical basis for the value ethics investigation of this research. Of the abovementioned areas of ethics concerns, privacy seemed to be the most discussed in the articles examined analyzing ICT values and ethics. However, the dialogue taking place amongst ICT ethics and other media fields related to social media archiving will be analyzed in later sections. Moreover, to continue this value ethics analysis I will now examine values and areas of ethics concern in new media research.

New Media

As discussed previously, I chose new media due to its relation to both technology and the cultures in which it is embedded. Before discussing the areas of ethics concern that arose in my new media value ethics research, I would first like to clarify my framing of new media for the purposes of this study as at times 'new media' holds varying interpretations based upon context

and discipline. In analyzing ethics frameworks based focused on new media, many studies solely categorized new media in the context of new forms of journalism primarily related to citizen journalism as well as the multimedia orientation of emerging digital news forms. However, in framing my use of new media in this research and how it relates to social media archiving, I draw from Lev Manovich's *New Media from Borges to HTML*. While Manovich explores eight different concepts as to defining new media, its origins, and influence, towards the end of his discussion, he succinctly characterizes new media as based in the cultural nature of computer and digitally-based global networking tools (Manovich). Manovich sums up the field in stating, "new media is focused on the cultural and computing" (Manovich). Moreover, I have chosen to focus on new media as field from which value ethics can be gained for social media archiving due to the cultural and technological forward-facing orientation of new media.

Now that I have clarified my positioning on how new media is considered in this thesis, I will continue with analyzing value ethics that surfaced in my research of new media ethics frameworks. Interestingly, the new media ethics framework tended to steer away from presenting formal value ethics guidelines for new media as a broad domain. Instead, these works tended to present these values in the form of neo-Aristotelian virtue ethics, which is centered in a focus on questions of what is good for humans and the consequences for potential negative ethical behavior (Couldry). While, the values of new media research were primarily presented in the form of virtue ethics as opposed to areas of ethics concern as seen in the previous section ICT ethics research, I will first discuss the virtue ethics discussed in the presented new media research and will follow-up to this discussion with interpreting this virtue ethics in the context of values and their dialogue with social media archiving practices.

Many of the virtue ethics and values found in the studies I chose for analyzing new media ethics frameworks characterized the sentiments expressed in the above analyzed ICT ethics values and concerns. However, I did find differences and new values in the values of new media research. For example, in *Media, Society, World and Towards an Open Ethics: Implications of New Media Platforms for Global Ethics Discourse*, the authors take a different seemingly more personal approach to shaping ethics in new media studies (Couldry). Before discussing these approaches to ethics in new media, I should note that both of the abovementioned works have a new media approach which leans more towards new media as related to journalism. However, I have included these frameworks in the new media analysis because the values they present are broad enough as to be taken into consideration in the context of new media as a whole.

Moreover, continuing with the discussion of virtue ethics in *Media, Society, World* (Couldry) and *Towards an Open Ethics: Implications of New Media Platforms for Global Ethics Discourse* (Ward and Wasserman) the authors take a neo-Aristotelian approach in ethics philosophy, which as mentioned previously focuses on developing ethics focused on doing good for humans. With this approach in mind, Couldry frames three virtues of accuracy, sincerity, and care for media ethics. In terms of breaking a part these virtues, accuracy appears to be most familiar to this type of ethics analysis, and Couldry makes note of this as well; however, the concepts of sincerity and care seem to warrant more careful unpacking. As it seems to suggest, accuracy is focused on a commitment to clear, truthful representations of objects of analysis in new media. In *Towards an Open Ethics: Implications of New Media Platforms for Global Ethics Discourse*, Ward and Wasserman connect accuracy as based in truth-seeking. In the case of social media archiving, accuracy is crucial to the maintenance of authentic individual and collective narrative depictions (Ward and Wasserman). While it is not completely possible to fully represent the breadth of

another individual's perspectives, sentiments, and thoughts, an interest and aim towards accuracy will encourage striving towards that research virtue. Accuracy also surfaced as a value mentioned in the DocNow focus group session "Social Media and a Record of the Movement" discussed above where panelist urged researchers to preserve their research as authentically as possible although it was noted that the full essence of their activist experiences and interactions could not be entirely captured through any means of preservation (DocNow *Social Media and a Record of the Movement*).

Sincerity as a virtue ethic ties into the concern for accuracy. In discussing sincerity, both Couldry as well as Ward and Wasserman highlight sincerity as part of their virtue ethics frameworks for new media though they approach this value in slightly different ways. Couldry asserts that sincerity relates to how not only information is presented but it involves the revealing of beliefs from the entities presenting information (Couldry). On the other hand, Ward and Wasserman consider sincerity in the context of the actual participation of the public in terms of how media are created (Ward and Wasserman). Also, related to the virtue ethic of sincerity as Ward and Wasserman discuss it is their virtue ethic of hospitality, which they present in the context of counteracting hegemonic structure in new media practices by incorporating multiple voices and perspectives in media ethics discourse (Ward and Wasserman). The virtue ethic of hospitality which Ward and Wasserman discuss is somewhat similar to the virtue ethic of care discussed by Couldry. The virtue ethic of care, however, presented by Couldry is more concerned with sustaining the space of media through an orientation of ethics similar to feminist ethics of care which carefully considers the preservation of both public and private from a perspective of concern with caring relationships (Couldry).

Another perspective on new media ethics that I have included in this new media ethics analysis is from *Ethics on the Web Applying Moral Decision-Making to the New Media*. This new media ethics framework research is somewhat different from the ones presented above because it is based out of an interest in commerce via new media and how new media are being used to target goods to consumers. However, I believe the conceptual context and corresponding ethics values presented in this work provide an interesting contrast while dialoguing with the above discussed new media virtue ethics. Moreover, this new media ethics analysis will also present value in broadening value ethics perspective in my social media archiving recommendations as discussed later in this thesis. Similar to the ICT ethics analysis, privacy is an area of ethics concern presented in Sama and Shoaf's work. Privacy is highlighted as an area of ethics concern in addition to intellectual property, the right-to-know, and value (Sama and Shoaf).

In discussing privacy, Sama and Shoaf acknowledge the trade-offs involved in maintaining user privacy and using new media forms of gathering data on consumers to provide purchase recommendation. While different in context, this issue of addressing trade-offs in handling individuals' information via digital means is critical to social media archiving as a field as well. Likewise, the ethic interest of right-to-know, which Sama and Shoaf present as consumers' right to know of possible safety issues in regards to product use, speaks to social media archiving and how individuals whose data may be used in research projects and preservation have the right-to-know of the implications associated with such data storage and use (Sama and Shoaf). In addition to privacy and the right-to-know, Sama and Shoaf discuss intellectual property as an area of ethics concern for new media as companies may attempt to steal the intellectual property of other entities in order to have an advantage over their competitors. This information may be used for internal purposes or sold for profit. Considering, this frame of thought in the context of social media

archiving, how social media archiving researchers handle “big data” and corresponding intellectual property they develop from the individuals whose data is involved presents an area of potential discussion for social media archiving practices. Along the same lines as intellectual property ethics interest is the ethics interests in value. Sama and Shoaf suggest that companies should prioritize value, specifically as it regards quality, for their customers over their own (Sama and Shoaf).

Citizen Journalism

In comparison with the previously discussed areas of ethics framework inquiry, several works have been developed that discuss ethics in citizen journalism (Heider and Massanari; Smith and Lee; Roberts and Steiner). As the term suggests, citizen journalism involves citizens, as opposed to professional journalist, reporting news by gathering and presenting information through various media forms. Citizen journalism is thought to have spurned out of the Seattle 1999 World Trade Organization meeting (Roberts and Steiner). Citizen journalism is significant in relationship to social media archiving in that both fields involve the development of citizen content that is used for dissemination in either news sharing or scholarly research purposes. Because citizen journalism involves non-professional news development, the platform with which many citizen journalism ethics frameworks focus is blogs (Roberts and Steiner; Kuhn; Cyberjournalist.net). However, other citizen journalism ethics analysis take a more general approach in considering citizen journalism (Smith and Lee). I will discuss both in this analysis.

Considering the values of citizen journalism as it relates to ethics for the field, Don Heider and Adrienne Massanari in *Digital Ethics Research & Practice* consider different sources providing guidelines for citizen journalism. However, for this discussion, I will look at two different code of citizen journalism ethics Heider and Massanari present – one found on a blogger site (cyberjournalist.net) and the other framework found in Martin Kuhn’s *Interactivity and*

Prioritizing the Human: A Code of Blogging Ethics. On the blogger site that Heider and Massanari reference the author presents a very straightforward three-point ethics guideline for bloggers. This ethics framework proposes that citizen journalist be honest, fair, accountable, and that citizen journalist blogging work to minimize harm. As Heider and Massanari highlight, some similar ethics principles are included in Kuhn's citizen journalism ethics guidelines of promote interactivity, free expression, the "human" element, factual truth, and transparency (Kuhn; Heider and Massanari).

While both the cyberjournalist.net blogger's code of ethics and Kuhn's approach to ethics principles for citizen journalism are presented in a fairly succinct way, Dennis Smith and Philip Lee in *A Code of Ethics for Citizen Journalism* discuss the importance of ethics in citizen journalism due to its increasing impact and draw from *The Guardian* editor Alan Rusbridger's ten principles for citizen journalism ethics, which offers a more comprehensive approach to considering ethics in citizen journalism practices. Again, similar values to those already discussed in ICT and new media ethics research, such as encouraging multiple voices through participation and inviting response, are presented. However, Rusbridger also presents some unique values, such as citizen journalism should invite response, not use an "us" or "them" approach, encourage debate, form communication, be open to the web, aggregate and possibly curate the work of others, promote diversity through shared values, and be open to challenge by other perspectives (Smith and Lee).

Considering these three different approaches to incorporating ethics principles in citizen journalism there are two different forms of emphasis that influence the construction of these approaches. In the case of the cyberjournalist.net blogger's code of ethics and those proposed by Kuhn, the emphasis is on presenting information in an honest, factual, transparent way (Roberts

and Steiner; Kuhn; Cyberjournalist.net). On the other hand, in Rusbridger's ten principles for citizen journalism as discussed in Smith and Lee's *A Code of Ethics for Citizen Journalism*, the emphasis is not so much on credibility and authenticity in accounts but is more towards incorporating community forming and engagement. This emphasis is demonstrated in principles found in citizen journalism ethics that promote debate, citizen response, and publishing being an initial step in the journalism process as it would be expected to have ongoing changes based upon citizen responses (Smith and Lee). The emphasis on community engagement is somewhat represented in Kuhn's ethics principle of promoting interactivity in citizen journalism (Kuhn).

While the emphasis of an honest and accurate portrayal of information through citizen journalism is emphasized through the Blogger's Code of Ethics and Kuhn's approach to citizen journalism in regard to presenting factual truth and maintaining transparency, the community and collaborative emphasis seen in Rusbridger's ten-point ethics principle guidelines as well as part of Kuhn's approach in promoting interactivity, free expression, and the "human" element, the collaborative, participatory emphasis are similar to DocNow's research focus. In the DocNow focus group session, the panelist echoed many of the sentiments presented in both Rusbridger's and Kuhn's ethics guidelines. The emphasis on the "human" element, as Kuhn suggests, was a sentiment that panelist raised in the focus group session "Social Media and a Record of the Movement" (DocNow *Social Media and a Record of the Movement*). Moreover, the importance of multiple voices and diversity in shared values also speaks to the significance of social media archiving in a historical context as social media archiving is positioned to represent the narratives of individuals historically marginalized (Kuhn). More discussion of how these citizen journalism ethics guidelines speak to the ethics frameworks of ICT, new media, and social media as well as the perspectives of individuals whose narratives are potential sources of research data in social

media archiving will be discussed further in a later section. However, prior to that more comprehensive analysis and discussion, I will consider the final field of ethics framework analysis for this thesis, which is the ethics framework presented in social media research.

Social Media

As already discussed in this work, social media networks are increasingly becoming sites of interest for researchers due to the rich ethnographic and data-rich potential on the various platforms available (Papacharissi; Tufekci; Brock; Florini; Marwick and Boyd; Jones). Twitter, especially due to its ability to promote rapid sharing of information both within smaller networks and larger circles as well as its public-sharing oriented privacy policy, is a site of interest for both users and researchers (Papacharissi; Brock). Before discussing research on social media research ethics, I will first discuss the most recent Twitter Privacy Policy, which was put into effect June 18, 2017. In terms of how the privacy policy is presented, the language is presented in a straightforward manner and organized as to ensure readers understand their terms of operation. The stated purpose of the Twitter Privacy Policy is to describe how Twitter collects, uses, and shares information on users to their “websites, SMS, APIs, email notifications, applications, buttons, embeds, ads, and ... other covered services, and from...partners and other third parties.” Moreover, the possibilities in distribution of users’ collected information are vast. In the spirit of transparency praised as in good ethics by some of the previously discussed ethics frameworks (Capurro; Cyberjournalist.net; Sama and Shoaf), Twitter states any updates to their privacy policy will be sent out as an @Twitter update as well as via email to user’s registered email accounts. Also, previous archived Twitter privacy policies are available on this page as well as a link to inquire about Twitter privacy concerns. (Twitter).

While on the surface the presentation of Twitter's privacy policy seems to attempt an ethically minded approach in informing users, to more fully understand the research implications of Twitter's Privacy Policy, we need to further consider the content presented. In opening their privacy policy, Twitter states, "What you share on Twitter may be viewed all around the world instantly. You are what you Tweet!" (Twitter). From the beginning, the emphasis on the public-oriented nature of Twitter as a social media platform can be observed. Furthermore, throughout the privacy policy, Twitter outlines what user information is public by default such as a user's name, username, and page being included in search results. The Twitter Privacy Policy situates their stance on sharing user information as helping users get their messages out to the world. This aim is reflected in the following quote, "Twitter is primarily designed to help you share information with the world. Most of the information you provide us through Twitter is information you are asking us to make public" (Twitter).

While the Twitter Privacy Policy openly takes a very public approach to how data are handled, research on social media ethics emphasizes privacy as a principal area of ethics concern (Zimmer "'But the Data Is Already Public': On the Ethics of Research in Facebook"; Zimmer and Proferes; Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "; Crawford and Finn; Henderson, Johnson and Auld). Associated with ethics concerns of privacy, anonymity, traceability, research involving minors, and the handling of illicit material/activity are discussed in social networks ethics concern research (Zimmer and Proferes). Another area of ethics concern discussed in Michael Zimmer's *Is it Ethical to harvest Public Twitter Accounts without Consent?* is the issue of intent. While it is not completely possible to discover the motivating factor influencing each Twitter user, Zimmer asserts that most Twitter users do not create Twitter pages with the intent of being included in research or data mining. Likewise, Zimmer suggests that most

Twitter users simply assume that their Tweets will be one of millions perhaps (Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? ").

Issues associated with privacy and social media are not out of the public eye. Just to name two examples, the “Taste, Times, and Ties” project where a study using Facebook data from unaware Harvard students was used to identify the unknowing research subjects and the current Cambridge Analytica scandal, where Facebook revealed that profile data of perhaps 87 million Facebook users may have been shared with Cambridge Analytica and consequently used to influence various campaign outcomes demonstrate how social media research and ethics issues are inseparable (Zimmer ““But the Data Is Already Public”: On the Ethics of Research in Facebook”; Solon; Chen). While there is a ten-year gap between the “Taste, Times, and Ties” (T3) research project and the current Cambridge Analytica scandal, public disapproval and concern as to the ethics involved in these social media-based data mining projects remain. In *“But the Data Is Already Public”: On the Ethics of Research in Facebook*, Zimmer highlights the “conceptual gaps” in how the researchers involved in the T3 project handled and subsequently mishandled the profile data of the unaware research subjects. Zimmer states that the T3 project did not adequately address privacy concerns by utilizing informed consent and anticipating the ethical expectations of the public (Zimmer ““But the Data Is Already Public”: On the Ethics of Research in Facebook”).

Privacy is considered further in depth in *A Topology of Twitter Research*, which asserts ethics is a process that should be carried out in collaboration with researchers and research participants (Zimmer and Proferes). This ideal is at the heart of this thesis and corresponding social media prototype development. Moreover, in *Silences of ethical practice: dilemmas for researchers using social media*, Henderson et. al, identify privacy as involving the aspects of consent, traceability, additional concern in research involving children and young people, and challenges

in uncovering illicit or potentially harmful activity through social media research (Henderson, Johnson and Auld). The concept of traceability is significant in social media archiving research due to the fact that even if a research participant consents to having their Twitter post(s) used in an anonymized way where their identity is concealed their identity may be discovered through searching the partial or whole content of the Tweet. Moreover, more investigation as to how to minimize as much harm as possible even in attempts to anonymize research participants is needed. Likewise, the issue with using children or young people's publicly published posts is an important topic of ethics concern that warrants careful attention and safeguarding (Henderson, Johnson and Auld).

How privacy is handled in social media archiving and other social media-based research is challenging to navigate, especially in the case of Twitter, where the platform states that their purpose is in publicizing the information users post (Twitter). On one hand, social media archiving presents a unique opportunity for history making and preservation where the individual and collective narratives of groups of people can be preserved in a digital manner. This opportunity suggests potential in the autonomy of everyday individuals in making history through their perspectives and sharing. However, while social media archiving presents a potentially beneficial opportunity for researchers and research participants to collaborate towards developing new ways of preserving historical narratives, there are several areas of ethics concern, as discussed in the above sections, which must be addressed.

In the next section, I will carry out a more comprehensive analysis to identify how the ethics frameworks I discussed in this section are in dialogue or not in conversation with each other and the areas of ethics interest discussed by the DocNow focus group panel in the "Social Media and a Record of the Movement" session. However, before continuing in the broader analysis, I

will summarize the social media ethics frameworks analyzed as being concerned with privacy of user data and how this is associated with more fine-tuned issues of consent, traceability, dealing with minors, and handling potentially sensitive, illicit material (Zimmer "'But the Data Is Already Public": On the Ethics of Research in Facebook"; Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "; Zimmer and Proferes; Henderson, Johnson and Auld). Also, in this section, I discussed the issue of user intent and how this should be interpreted and handled in a research context which is purposed to expand knowledge (Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "). Before continuing with the broader value and ethics concerns analysis, I would first like to note that while this analysis of ethics concerns and values in the related social media archiving fields of ICT, new media, citizen journalism, social media, and the analyzed focus group session provides a broad, encompassing way of developing ethics perspectives on social media archiving, this analysis is in no way totalizing and completely reflective of all of the values possibly present in these fields. However, these perspectives do aid in beginning work towards generating dialogue as to how digital ethics related to social media archiving can be implemented and recognized as digital ethics standards become more ubiquitous with the increased integration of digital records in our everyday lives. The following table (Table 1) provides a brief summary of the ethics frameworks of ICT, new media, citizen journalism, and social media research explored in this section.

Dialogue Among the Ethics Frameworks

As the above discussion illustrates, there are a myriad of ways in which ethics can be considered, applied, and discussed. The above value and ethics of ICT, new media, citizen journalism, and social media frameworks demonstrate how different individuals, fields, and research entities may have different ways of communicating the same or similar principles as well

as how different values may come up as important to different voices within the same field. Moreover, potential research participants also have unique perspectives as to ethics guidelines that should be carried out in research. The purpose of this lengthy analysis of ethics frameworks is not to simply compile a list of the values present in the ethics frameworks found in ICT, new media, citizen journalism, and social media research. Instead, the purpose of this analysis is to recognize as Zimmer and Proferes state the “numerous disciplines” reflected in Twitter research and through this recognition develop a framework of digital ethics recommendations that can be used in generating dialogue surrounding ethics practices for social media archiving (Zimmer and Proferes).

Table 1. Overview of value ethics frameworks for ICT, new media, citizen journalism, and social media

Ethics Value Framework Sources Summary Overview			
ICT	New Media	Citizen Journalism	Social Media
Transparency is needed in computing ethics (Moor)	Neo-Aristotelian virtue ethics approach (Couldry) <ul style="list-style-type: none"> - transparency - accuracy - sincerity - hospitality 	Succinct points for realizing ethics in citizen (cyberjournalist.net; Kuhn) <ul style="list-style-type: none"> - honest - fair - accountable - minimizing harm - free expression - the “human” element - factual truth and transparency - honesty - disclosure of sources 	Public has expectations of privacy (Zimmer) <ul style="list-style-type: none"> - public nature of social media and Twitter - traceability - anonymity - protecting youth - handling uncovering illicit activity
Interactive media weakens hegemonic structures (Capurro)	Business approach to new media		

Ethics Value Framework Sources Summary Overview cont.

- privacy	ethics but focuses on	Encourage
- security	rights of	community and
- information	users (Sama and Shoaf)	participation;
overload	- challenges in	invite response
- digital divide	protecting	(Smith and Lee)
- gender	privacy in	
discrimination	attempting to	
- censorship	use personal	
	data for	
	customization	

There is a need for
privacy in ICT research
(Goran)

- How is privacy defined?
- Privacy: individual autonomy/freedom is the right to control circulation of information of oneself
- Common morality
 - o privacy
 - o transparency
 - o freedom of speech
 - o response

Emphasis on open
ethics approach. Uses a
neo-Aristotelian virtue
ethics approach (Ward
and Wasserman)

- accuracy
- truth-seeking
- sincerity
- hospitality

Values in design should
be included as a
specific process
(Van den Hoven)

While a number of values and virtue ethics were identified in the previous discussion of social media research participant perspectives and the above analysis of ICT, new media, citizen journalism, and social media ethics research in order to develop a framework of social media archiving ethics recommendations, I will now move towards analyzing what dialogues exist in this network of ethics frameworks. To carry out this analysis, I will both refer to the above sections of ethics analysis for ICT, new media, citizen journalism, and social media values as well as the ethics framework concept map in Figure 11. Moreover, considering the ethics value analysis as well as the concept map in Figure 11, privacy is an ethics value that is discussed in all of the fields analyzed but citizen journalism (Capurro; Göran; Sama and Shoaf; Zimmer "“But the Data Is Already Public”: On the Ethics of Research in Facebook"; Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "; Zimmer and Proferes). Privacy is probably not considered in the included citizen journalism ethics research due to these works’ emphasis on sharing and community building in citizen journalism (Kuhn; Ward and Wasserman).



Figure 11. Concept map demonstrating network of ethics frameworks for social media research participants, ICT, new media, citizen journalism, and social media

As seen in Figure 11, privacy is connected to other areas of ethics value, specifically prioritizing consent in research subjects, minimizing harm by anonymizing and being sure to protect children while carrying out social media-based research (Zimmer "'But the Data Is Already Public": On the Ethics of Research in Facebook"; Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "; Zimmer and Proferes; Capurro; Sama and Shoaf). While protecting research participants' privacy is an area of central concern for social media archiving, I should also note that one of the unique features of social media archiving is its ability to highlight everyday individuals as part of larger historical movements and events. Moreover, giving participants the option to participate and self-identify on varying levels in social media archiving is significant in maintain participants' privacy as well as ability to preserve their narratives.

In addition to privacy, transparency and accuracy in preservation are additional somewhat related ethics values that surfaces amongst the above ethics perspectives (Moor; Van den Hoven; Göran; Cyberjournalist.net). I link these two ethics values together in that presenting accurate narrative accounts transparency between researchers and research participants is necessary. Moreover, transparency should occur both in how research participants narratives are curated by researchers as well as in the data gathering practices of the archiving entity. Moreover, in the DocNow focus group session discussed in Chapter 3, accuracy is a value that the panelists encouraged researchers to embody in their research practices as opposed to sensationalized narrative promotion (DocNow *Social Media and a Record of the Movement*).

The fourth value that is communicated as significant in the above analysis is encouraging user involvement. Social media archiving, as the name suggests, is a social process. As such, research participant participation is needed in order to ensure accuracy in presenting narratives and also in order to promote the practice of ethics as a process as suggested by Zimmer and Proferes

(Zimmer and Proferes). Moreover, also reflected in the DocNow focus panel session *Social Media and a Record of the Movement*, the panelist, who were all involved in the Ferguson movement, describe the inability of social media to illustrate the full complexity of historical events as well as off-line interactions. Also, it is noted that social media research that focuses only on one moment of an individual user's life does not reflect the growth and change in individuals affected by such movements (DocNow *Social Media and a Record of the Movement*).

Building from DocNow Ethics Framework

As I mentioned above, my purpose in considering these value and ethics perspectives is not simply to amass a great deal of perspectives on ethics and social media research. Instead as Ward states in *Radical Media Ethics A Global Approach*, I take the stance that "Ethics is not about making descriptive claims about moral facts existing in the world. It is about articulating proposals for action and reform" (Ward). Now, with the above ethics analysis in consideration as well as Ward's assertion for action and reform, the action and reform I propose are two-fold. The first involves the digital ethics framework recommendations for social media archiving applications and the second is an approach to implement the recommended digital ethics framework recommendations as witnessed in a brief prototype.

To address the social media digital ethics framework first, I suggest the beginning framework for the field to embrace the following ethics guidelines, which I have already discussed above. These are: protecting privacy (anticipate ethics expectations, consent through opt-in/out, anonymize where needed, minimize harm,); ensuring accuracy in presenting Twitter posts, narrative accounts, and dialogues; being transparent in how user data are gathered, preserved, and used, and encouraging research participant involvement in social media archiving efforts in order

to promote accurate narrative representations as well as encourage research participant empowerment in the preservation process for those interested in getting further involved.

In terms of the ethics values presented in the DocNow prototype and list of Affordances for Ethical Practices. These design-oriented ethics guidelines seem to effectively enable researchers and citizens to navigate their social media archiving tool. While the digital ethics framework recommendations that I have suggested are broader, it is because I am aiming to contribute to an ethics framework that could be applied to various social media archiving research while still being specific enough to the field. Moreover, in building from the DocNow tool and based off of my above social media archiving ethics recommendations, I suggest that a social media archiving tool should also include the capacity for researchers and research participants to collaborate if desired by research participants. This type of platform could promote ongoing ethics development for specific social media archiving projects where researchers and research participants work together in determining best practices for their specific projects.

Artifact Discussion

To demonstrate, how the digital ethics framework recommendations I have identified can be implemented in a social media archiving tool, I have developed a social media archiving prototype – narrativeShare. The main purpose behind this prototype is to demonstrate the research and research participant collaborative element that should be incorporated in social media archiving. Consequently, the prototype does not go through the entire flow of a potential social media archiving tool, but instead centers on demonstrating the four abovementioned ethics guidelines with a focus on the collaborative element. Also, before going into the artifact discussion, I created this prototype in Axure after creating a moodboard for inspiration and hand-drawn wireframes for the structural basis. As seen in Figure 12, the design of the homepage is minimal.

I chose this format in light of Brock’s assessment of Twitter’s minimalist design as a positive factor in increasing its ease-in use and popularity among mobile users (Brock).



Figure 12: narrativeShare prototype example home screen

From the Homepage, users can login, join the narrativeShare platform, or browse the website from the navigation bar, which includes About, Community, and Events page link. In this artifact discussion, I will be going through the About, Community, and a sample member’s page.

Continuing to the About page as seen in Figure 13, this page also continues with the straightforward, streamlined design which Brock discussed; however, this tendency towards minimalism is to also suggest a transparent research-collaboration environment. With the three brief text blocks below the welcome, the About page introduces narrativeShare as both a social media archiving resource where social media archiving researchers and research participants can collaborate in preserving history through accurate narrative accounts and ongoing ethics dialogue.

The About page describes the purpose of narrativeShare as meeting a research need in social media archiving for researchers and research participants to collaborate in developing historical records and determining shared research values.

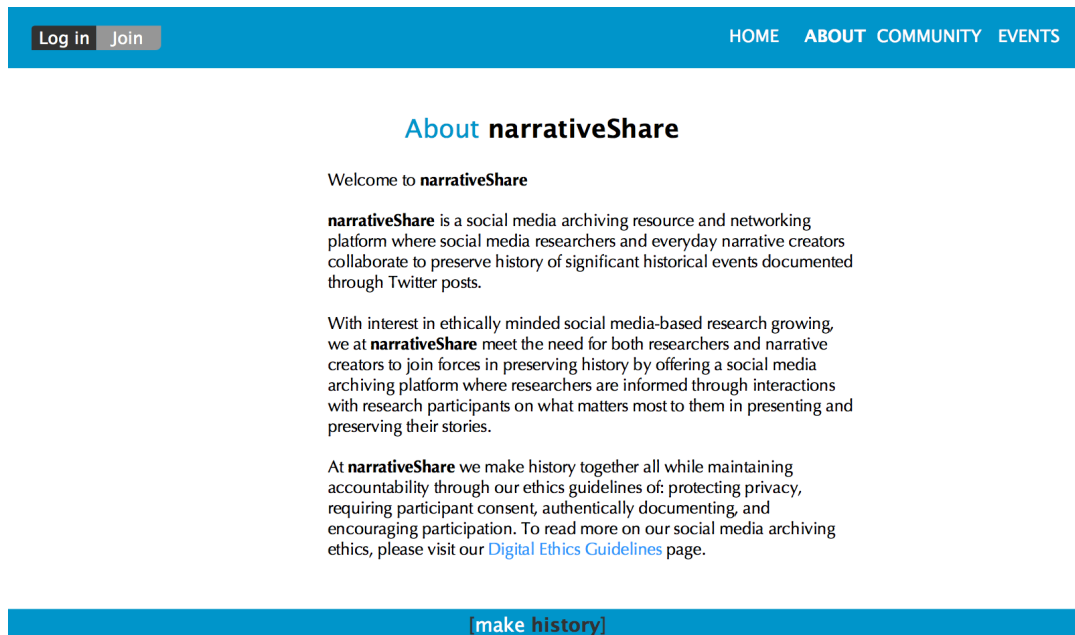


Figure 13: narrativeShare prototype About page

The above social media archiving ethics guidelines are listed in the About page, while a more comprehensive explanation of the project's ethics guidelines is offered through the hyperlinked "Digital Ethics Guidelines." The straightforward approach to the About section of the website is to quickly and effectively engage and inform interested potential researchers and research participants.

The next page I will discuss is the Community page. Figure 14 is an example of where researchers and research participants who are members of narrativeShare could discover other members and the social media archiving projects with which they are involved. The purpose of the Community page is central to the narrativeShare platform and is what differentiates this social media archiving approach from DocNow. The Community page continues in the same simplistic

design as used on the rest of the website and provides quick identifiers for community members. Members are identified by their first and last name and their association to social media archiving. For examples, on this page community members involved range from student activists to community organizers, to researchers or professors. The purpose in listing member's associations with social media archiving is to enable other members looking for specific research contact-types to be able to easily discover them. Also, with the search tool, members can look up specific categories of members for instance "student" or "researcher".

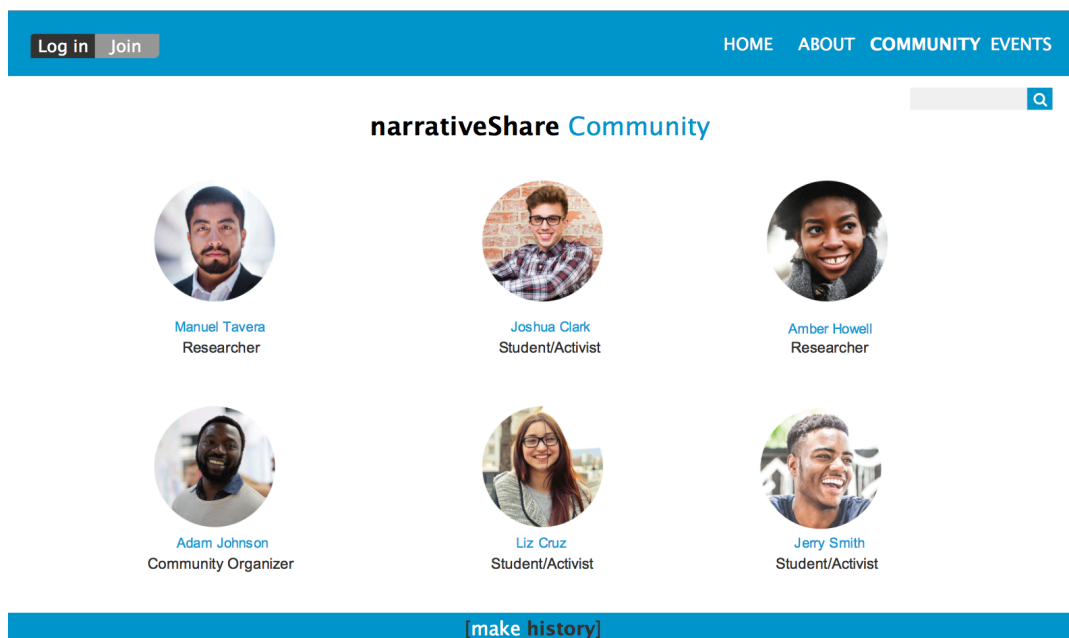


Figure 14: narrativeShare prototype Community page example

From this Community page view, if a member were to click Adam Johnson's picture or name (located on the lower left), his individual member profile page would be viewable as seen in Figure 15. On member's individual profile pages, other members can view their name, location, and current research ambition. In the case of Adam Johnson depicted in Figure 14, he is working to set up a local focus group for a current project. In the middle of the page, members

can list their current projects with which they might want to collaborate with other researchers. Also, towards the right, participants can list a series of past projects. I included a current and past projects view in order to incorporate the element of change and personal growth mentioned in the DocNow focus group session “Social Media and a Record of the Movement” (*DocNow Social Media and a Record of the Movement*). The purpose of these two project planes is to not only provide other researchers insight into specific member’s interests and backgrounds but to allow individual members to document the personal changes they undergo as a result of being involved in activist-oriented movements and events.

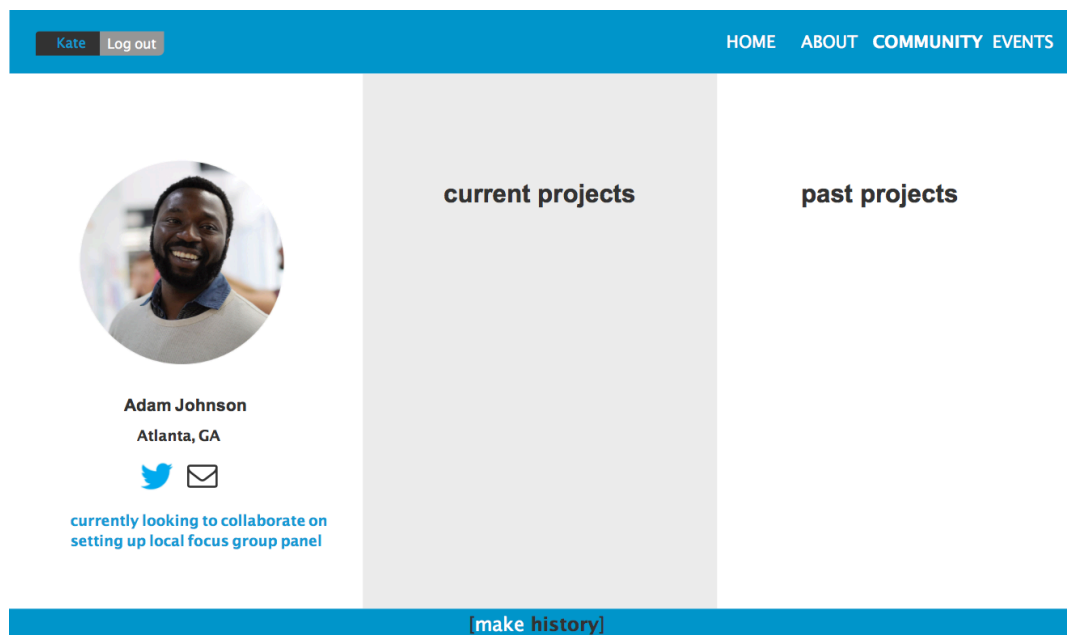


Figure 15: narrativeShare prototype community member page example

Though I did not go through the events link on the narrativeShare prototype example, this segment of the site would also be member-restricted and would allow members to post and see upcoming events, such as demonstrations, focus group sessions, interviews, and conferences related to social media archiving. Again, the intent behind this feature is to encourage participation

and collaboration between researchers and research participations through a social media archiving platform that facilitates ethically-based social media archiving practices and interactions.

This brief exploration of narrativeShare as a social media archiving platform for researchers and research participants to collaborate is an example of the possibilities social media archiving presents for history preservation. The slogan “make history” included throughout the website is included to suggest the importance behind the collaborative efforts of both researchers involved in social media archiving and the Twitter users who are interested in preserving their historical narratives. Through this platform, researchers and research participants would be able to interact on an online platform where shared values could be discovered and developed over time. Future iterations and development of both the prototype and corresponding social media archiving ethics framework will continue to inform the development of the field at large and similar research platforms.

Chapter 6

Conclusion

Contributions to Social Media Archiving

This thesis has combined a variety of research approaches and cultural, historical, and technical analyses in order to contribute to the developing field of social media archiving by developing a framework of digital ethics and a prototype example of how the identified value ethics guidelines can be incorporated in a social media archiving platform for researchers and research participants. The social media archiving project Documenting the Now served as an entry point into analyzing the developing field of social media archiving. By analyzing the DocNow tool I was able to identify how the DocNow team utilized Value Sensitive Design as a method for incorporating the values of research participants in their tool. In addition to analyzing the DocNow platform, I carried out an extensive review of both the DocNow team and its funding entity, the Andrew W. Mellon Foundation.

In further contextualizing the DocNow project, I discussed how DocNow came about as a social media archiving initiative after the death of Michael Brown and the subsequent protests in 2014. Moreover, to understand the significance of the DocNow project and similar social media archiving initiatives that may focus on African Americans or other historically marginalized groups, I carried out a historical survey of the troubled history of U.S. research efforts involving African Americans. To expand this historical analysis, I also focused on the challenges of digital colonialism as threat to research like social media archiving, which could potentially perpetuate systemic targeting of traditionally marginalized people groups. Continuing with my cultural analysis, I discussed the significance of using Twitter as a research site by specifically focusing on the arena of Black Twitter as both a site of play and political mobilization.

To gain value ethics perspectives, I carried out empirical research by gaining social media research perspectives of both research participants and broader ethics values of fields in which social media archiving is based namely Information Communications Technology, new media, citizen journalism, and social media. From analyzing both perspectives from a DocNow focus group panel as well as research participants in scholarly research focused on user perspectives on social media-based research, I gathered that while social media usage is ubiquitous most users do not expect their posts to be used in research projects and ethics practices are expected of some users (Zimmer "Is It Ethical to Harvest Public Twitter Accounts without Consent? "; Beninger et al.; Marwick and Boyd). Also, I gathered that some research participants view Twitter and social media as only a fragment of a larger narrative and chain of interactions. Thus, while research participants want their narratives to be presented accurately, researchers should realize that these accounts are only part of a more totalizing effect.

By analyzing the ethics frameworks of ICT, new media, citizen journalism, and social media research, I identified several areas of ethics concerns and values. However, by mapping the values I identified in these fields related to social media archiving, I was able to identify four central ethics guidelines that can be used as a basis for generating more dialogue around social media archiving. To further illustrate how these ethics guidelines of protecting privacy, ensuring accuracy in preserving Twitter posts, narrative accounts, and dialogues, being transparent in how user data are gathered, preserved, and used, and encouraging research participant involvement in social media archiving efforts, I developed the social media archiving prototype example narrativeShare. From carrying out this research in identifying ethics guidelines for social media archiving research, I realized the importance of researcher-research participant collaboration in developing ethics as a process within individual research projects. Consequently, the social media

ethics framework in this work serves as an overarching guide for continued work in social media archiving. However, more specific shared values may be uncovered by researchers and research participants through a social media archiving platform like the one developed in this thesis.

Future Development

Since my thesis focuses on developing social media archiving ethics framework recommendations for projects like DocNow which focus on historical events, I spent a great deal of effort in this work focusing on the socio-historical significance of social media archiving especially as it regards African Americans. Also, in that I attempt to lay a beginning foundation in dialogue surrounding social media archiving ethics, I focused a significant amount of the work in this thesis on analyzing the ethics frameworks of fields related to social media archiving. However, future work with the project portion of this thesis could work to build out more of the proposed social media archiving platform for researchers and research participants. Building out the narrativeShare prototype would involve more collaboration with individuals already in the field of social media archiving. Feedback from focus group panels, iterative user testing, and more dialogue on social media archiving ethics principles will only enhance the already growing field of social media archiving. While I did not include all of the ethics values I uncovered through my research of ICT, new media, citizen journalism, and social media research, the analysis of the ethics frameworks from those field which I carried out as well as the concept map I developed in order to map out the variety of concepts and identify the dialogue taking place among them may be potential resources for future researchers interested in analyzing social media archiving ethics research. Also, for collaboration taking places on social media archiving platforms like the one I developed for this thesis the ethics framework summary and content map may be potential sources in enabling research collaborators to identify and act upon shared ethics. Future developments in

social media archiving will continue beyond this thesis, but hopefully, some of the groundwork and concepts laid out in this work will be of benefit to future researchers and narrative creators.

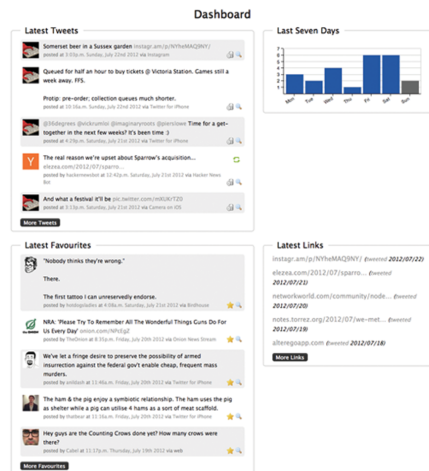
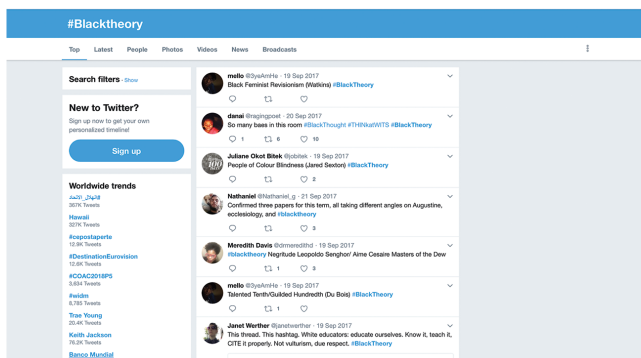
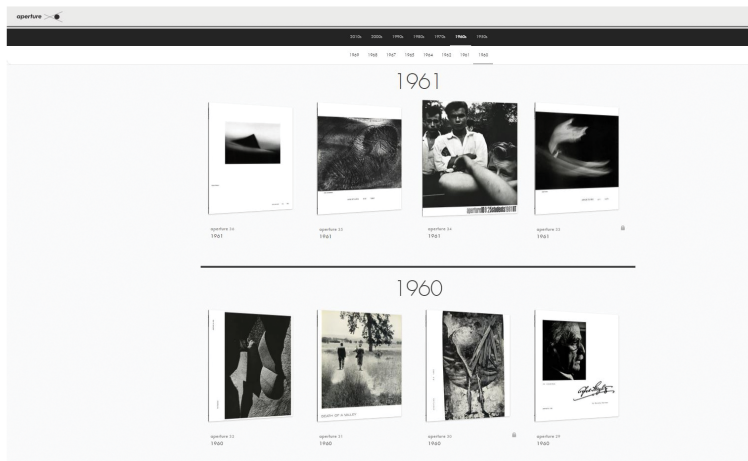
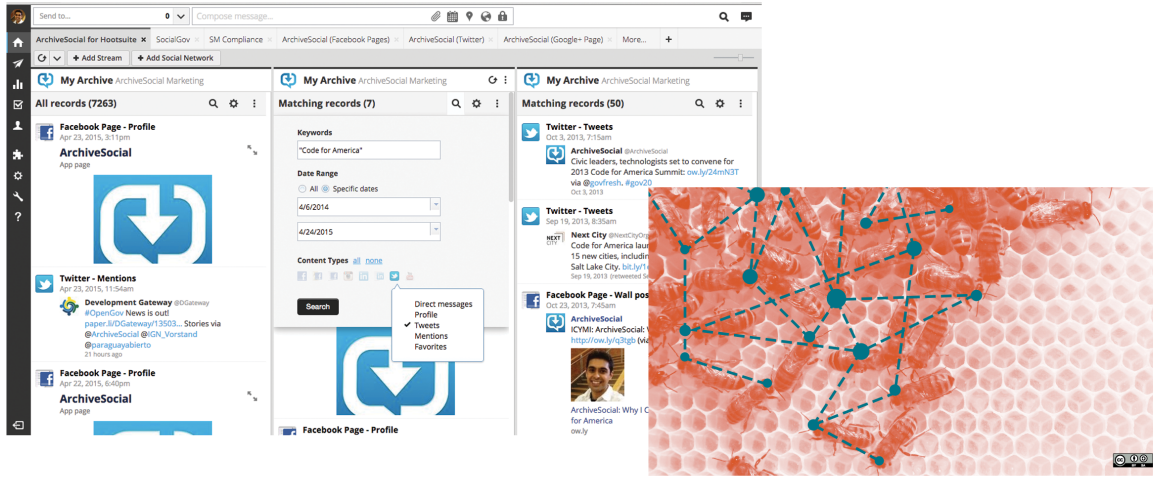
Appendix A.

DocNow Affordances for Ethical Practices

AFFORDANCES FOR ETHICAL PRACTICES

- Notification
- Opt-Out ... and Opt-In
- Data Retention Policies
- Tweet IDs and Hydration
- Traditional Knowledge Labels
- Warrant Canaries
- Appraisal
- Deed of Gift ... *from the content creators!*

Moodboard for Prototype Inspiration



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